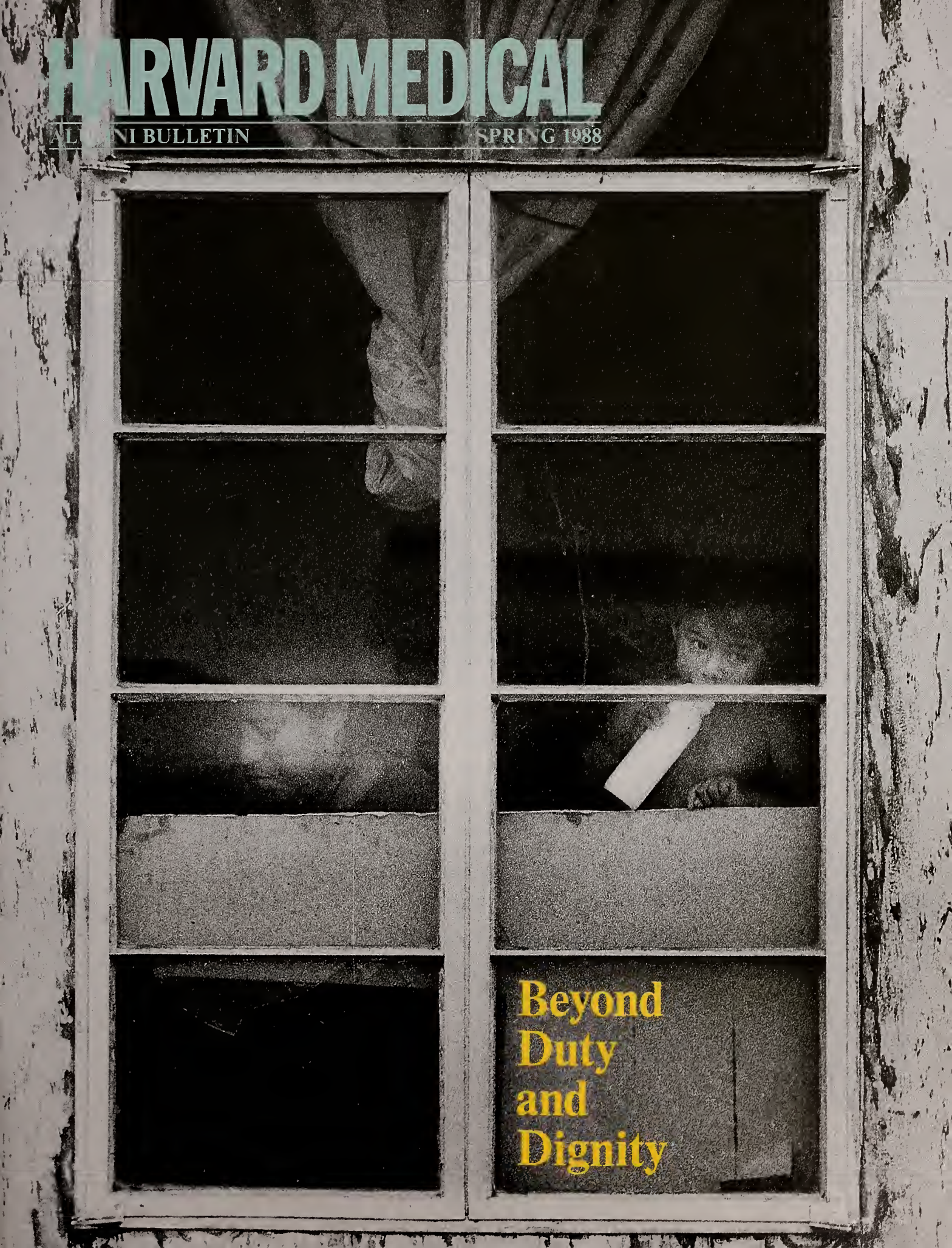


# HARVARD MEDICAL

ALUMNI BULLETIN

SPRING 1988



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# HARVARD MEDICAL

ALUMNI BULLETIN / SPRING 1988 / VOL. 61 NO. 4

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### **BEYOND DUTY AND DIGNITY: PHYSICIANS AND SOCIAL RESPONSIBILITY**

*Cover: Adelaida and her mother in their Fresno, Texas home. Photo by Steve Hanes, who traveled for six months with the Physician Task Force on Hunger in America for a series of photo-essays that appeared in the Providence Journal-Bulletin in May 1986.*



# INSIDE H.M.A.B.

**"I**n this world in which we find ourselves, the possibilities of good are almost limitless, and the possibilities of evil no less so"—Bertrand Russell.

The challenge of this issue was not to find physicians undertaking "socially responsible" activities, but to narrow the field of selections. Physicians, almost by definition, contribute to society every day. But some devote time beyond the bounds of duty to the formidable problems that plague our country and world.

The post-1960s idealism that first brought Jim O'Connell '82 to medical school has been awakened through his work with the homeless, from whom he receives "the gratitude of those who have few others to trust and little else to give." Second-year student David Stasior shares selections from a diary he kept last summer as a volunteer at a homeless shelter.

Herbert Abrams—convinced that the likelihood of accidental nuclear war is greater than intentional initiation by either superpower—presents evidence of physical and emotional disabilities among those with access to nuclear weapons and those with decision-making power in a crisis. Debra Trione, our assistant editor, reports on the new organization Physicians for Human Rights, and international advocacy against abuses.

And more on the possibilities of evil: Eliezer Trepman '82 describes the involvement of the German medical profession in the formulation and execution of Nazi doctrine.

The extent of hunger is tracked by Larry Brown and the Physician Task Force on Hunger in America. Massachusetts Public Health Commissioner Deborah Prothrow-Stith '79 characterizes the epidemic of violence among adolescents. And then we go to Africa. Why go there? A posthumous account by Maxon Eddy '35 tells why he quit a successful practice mid-career to head overseas. Jody Heymann '89 depicts other gratifications of work in less-developed countries.

Bernadine Healy '70, deputy science director at the White House for two years, writes an optimistic appraisal of government and the policy-making process. She closes by urging other physicians to become involved.

—Ellen Barlow

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# ALUMNI COUNCIL: PRESIDENT'S REPORT

## The Physician's Responsibility

by James A. Pittman Jr.

What is the physician's responsibility? I pose this question with a different scope in mind from the subjects covered in this *Bulletin* on physicians and social responsibility. The two levels of responsibility may, in fact, conflict at times. Is the physician responsible for just the individual patient who happens to be in front of him or her at a particular moment? Or is the physician responsible for the universe of patients and potential patients (all of us)? Is the physician the proper one to allocate resources between these alternatives, or should society at large, through representative bodies of legislators, be in charge of such decisions?

Massachusetts may be at the forefront in trying to answer these questions, but not to the liking of physicians. Last October the Massachusetts Medical Society passed a resolution, which—after a series of “whereas” clauses that pointed to the “morally, ethically, and professionally bankrupt state Medicaid program” and the legislatively enslaving requirements for licensure—resolved that it “considers the Commonwealth of Massachusetts an undesirable location in which to practice.”

Articles in this issue are about hunger in America, helping the homeless, human rights violations and the

like. The underlying assumption is that physicians have special responsibilities in these areas. In some such problems physicians do have special education and experience which can be helpful, such as in investigating hunger or promoting international health or pointing out the medical consequences of a nuclear war. In others perhaps it is more appropriate for physicians to participate simply as citizens of the world community.

Perhaps we can do more by example than by lecturing from afar. When I moved to Birmingham, Alabama from the NIH in 1956, Birmingham was a city racially segregated by law, with prominent KKK picnics. I had with me my Chinese wife, Constance Ming-Chung Shen, HMS '55, fresh from her internship at Hopkins. We were no great agitators or martyrs and just did our jobs as best we could in the local hospitals and medical school, even (or perhaps especially) during the increased turbulence of the late 1950s and early '60s. I wonder sometimes whether we may have done more good just by being there and being competent than we would have by a lot of agitation. But perhaps that's a cop-out.

The issue of social responsibility we physicians deal with day to day is the classical ethical problem—choosing between benefits for two competing individuals or groups (for example, “pro-life” or “pro-choice”), or a single individual versus one or more groups. Should I “go for broke” for my patient? It might even be considered my *duty* as a physician to *subvert* the system in the interest of my patient.

It is of course never that simple. Faced with the necessity of allocating that most scarce and precious of all resources in America today—time—physicians make such choices routinely. If I have two patients in adjacent rooms in the hospital—one a 93-year-old man with widespread bronchogenic carcinoma now resistant to all

therapy, the other a 35-year-old mother of three young children with fever of unknown origin—with whom will I spend the most time, and on whom will I expend the most resources?

Physicians are at times uncomfortable with allocations of resources made by others, as indicated by the Massachusetts Medical Society's resolution, but are often unable or unwilling to make the necessary choices themselves. It is all well and good to be against hunger in America or homelessness in some distant place, but when I have to give up my own dinner or pay much higher taxes myself, well that's a different matter!\*

It is worse if I as a physician must participate in denying help for my patient. But if I subvert Medicare, even for the benefit of my patient and not myself, that's a felony and I may go to jail for it!

One might argue that we have no adequate and implementable philosophy in America or elsewhere to deal with these choices at this time. However, our permissive American system of allowing individuals and associations to take initiatives and lobby for legislative changes can work if we give it the necessary time, energy and attention, and if we have a sufficient sense of social responsibility, as physicians and as citizens.

### Participation Sought

The medical school and the Alumni Council welcome the participation of non-faculty alumni on a number of important committees (such as admissions, financial aid, and curriculum). The time commitment, however, is significant. If interested, please contact the office of the director of alumni relations at 25 Shattuck Street, Boston MA 02115, 617/732-1560.

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The *Harvard Medical Alumni Bulletin* itself is taking a socially responsible position in publishing these essays. I trust they will be provocative. □

James A. Pittman Jr. '52 is dean, professor of medicine, and professor of physiology at University of Alabama School of Medicine, the University of Alabama at Birmingham.

\* Ralph Waldo Emerson in *Self Reliance* many years ago chided his fellow New Englanders for what might be termed "painless remote social responsibility:" "If an angry bigot assumes this bountiful cause of Abolition, and comes to me with his last news from Barbados, why should I not say to him, 'Go love thy infant; love thy wood chopper; be good natured and modest; have that grace; and never varnish your hard uncharitable ambition with this incredible tenderness for black folk a thousand miles off. Thy love afar is spite at home.'"

When one is in the thick of arguments about social responsibility, the rights and wrongs sometimes become blurred in the mists, and it takes exceptionally perceptive sight and perspective to see them clearly. David Nyhan writing recently in the *Boston Globe* commented on how the "gunslingers who manage the financial resources of a major university in the Boston area" (which he did not name, but he mentioned "crimson" and said their football team beat Yale last year) "got out early and fast and saved a bundle" for their university, while those widows and children who were slower afoot in the debacle of October 19th "got crushed in the rubble." Some, perhaps many, of those "slower afoot" were reported to have lost their entire savings or entire retirement funds, while Harvard University's endowment of about \$4 billion lost only approximately 7.2 percent. On the other hand, don't we want a strong Harvard?

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## LETTERS

### Pat on the Back

I write to praise you for the Fall/Winter 1987 issue of the *Bulletin*. I have read it from cover to cover. What a magnificent story and school. Simultaneously, I received a letter from Charlene Breedlove, assistant editor of the *Journal of the American Medical Association*, asking me to write a paper on "Remembering: the Medical Internship." I accepted. Your edition of the *Bulletin* will compound my interest and industry in this enjoyable endeavor.

Since I left Boston in 1937 for Minnesota, I have loved keeping up with the *Bulletin*. But never in those 50 years have I enjoyed reading it more than with this issue on how "Medical Education May Never Be the Same." And I agree. What a great place HMS is!

— Wesley Spink '32

I was glancing through the Fall/Winter 1987 issue of the *Bulletin* and was struck with what a superior publication it is.

I have some insight into medical journals as I was editor of the *Arkansas Medical Journal* for about 30 years—chose the papers, the publications and that sort of thing.

Congratulations on the *Harvard Medical Alumni Bulletin*.

— Alfred Kahn Jr. '40

Your medical education issue was truly outstanding. I was interested to learn of the new curriculum changes and also to see the bust of my grandfather, Charles Montraville Green, overlooking the atrium of the new medical education center. He graduated from HMS in 1877, established the obstetrics department there in 1885, and served as head of that department until 1907. From 1907-08 he filled in as acting dean of HMS.

— Winslow Green '62

### Pantaloon Humor

I write regarding the excerpt from *Under the Ether Dome* by Stephen A. Hoffman in the Fall/Winter 1987 issue of the *Bulletin*. To me this is an elaboration of one of the many anecdotes that make up the traditions of the medical school, albeit sanitized.

As recalled, the episode was reported from the OR at the Brigham when a new resident first scrubbed with John Homans and his residents. The story went like this:

Homans: "What is troubling you, young man?"

Resident: "Sir, my pants are falling down."

Homans: "Well, ask the circulating nurse to fix them for you."

After this was accomplished, Homans said: "What are you going to say to her?"

Resident: "Thank you very much, Miss."

Homans: "Is that all you are going to say?"

Resident: "I don't know what else to say."

Homans: "Well, you might at least say you hoped you could do the same for her sometime."

— William F. Thornley '35

### An Oversight

I appreciated your review of *Under the Ether Dome* and other books by doctors in the Fall/Winter *Bulletin*. Although I know that one can't read everything, I was disappointed that my book, *Getting Better: A Medical Student's Story*, about my experiences at Harvard, was not mentioned. It was very well-received in hardback, and later in paperback (Signet).

— Kenneth B. Klein '74

## Four New Chairs Filled

Dennis Kasper, Stuart Orkin '71, Thomas Stossel '67 and Peter Vaupel have all been named first incumbents of new chairs at HMS.

Dennis Kasper is now the Edward Kass Professor of Medicine, a professorship established with funds from

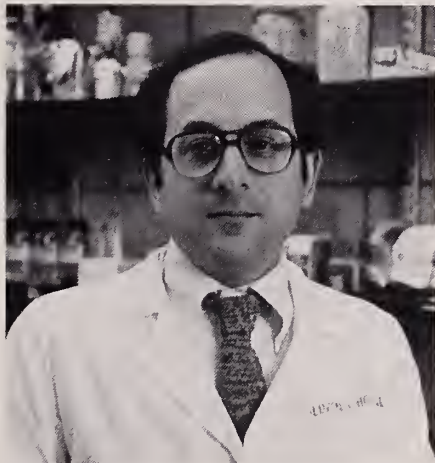
private and industrial sources to recognize Kass's many achievements. Kasper and Kass are colleagues in the Channing Laboratory at Brigham and Women's Hospital, where Kass is director and Kasper, associate director. Known worldwide for his work in infectious disease, Kass is the William Ellery Channing Professor of Medi-

cine. Kasper's research focus is the molecular composition of the coats of several bacteria. He is also investigating the body's immunological response to these molecules, with the long-range goal of developing vaccines.

Stuart Orkin is the first incumbent of a chair in pediatric medicine established by the Leland Fikes Foundation of Dallas. Orkin has been associated with HMS for all but two years since entering as a student in 1968. His research credits include the design of prenatal tests to detect beta-thalassemia and sickle-cell anemia, the identification of the gene responsible for chronic granulomatous disease, and the genetic characterization of a blood-clotting protein called the von Willebrand factor.

Thomas Stossel is the first recipient of the American Cancer Society Clinical Research Professorship at HMS. The American Cancer Society cited Stossel—who is also the director of the Hematology/Oncology Service at Massachusetts General Hospital—as “a world leader in the biology of phagocytes,” cells important for immunological defense against infections and possibly against malignant tumors. The society established the professorship to support research that brings “advances in basic science into clinical studies of cancer causation, prevention, diagnosis or treatment or, conversely, takes clinical problems into the basic research laboratory.”

Peter Vaupel, a West German expert on the erratic metabolism of tumor tissue, was named the A. Werk Cook Professor of Radiation Biology and Tumor Biology. Based at MGH, Vaupel will continue his analyses of the metabolism of different types of tumors, which clinically could lead to better tailoring of treatment. The professorship was established by Jane Cook in memory of her late husband, who graduated from Harvard University in 1934. □



*Stuart Orkin*



*Dennis Kasper (l) and Edward Kass*



*Thomas Stossel*



*Jane Cook and Peter Vaupel*





## New Children's Hospital Opens

"The little hospital that opened at 9 Rutland Street in 1869 is today one of the most prestigious medical centers in the world," said David I. Kosowsky, ScD, chairman of the Children's Hospital board of trustees. He was speaking at the November dedication ceremonies for the new 10-story, 271-bed Children's Hospital, which is adjacent and connected to the old hospital on Longwood Avenue. More than 600 parents, donors, hospital administrators, hospital employees and medical staff gathered to help celebrate the completion of the new facility.

Other dedication day speakers included Senator Edward Kennedy, Boston Mayor Raymond Flynn, Physician-in-chief David G. Nathan, HMS Dean for Academic Programs S. James Adelstein, and Children's Hospital President David S. Weiner.

Weiner noted that the need for a new building had been clear to everyone at Children's for some time. The old building had been burdened by "rooms too small to hold modern equipment and to allow enough parents to stay overnight; by inadequate storage and consultation space; by out-of-date ventilation and temperature-control systems; and by geographic isolation of several essential services."

The new building, which cost \$86



million, addresses these past problems. It has a high-quality air-circulation system that will protect patients from airborne infections, and space for parents to sleep overnight in the same room or very close to their child. Each room includes a toilet, shower and space for personal belongings. The building also has expanded intensive care and transplantation facilities, and medical-surgical floors where patients will be grouped by age as much as possible. The old building will be renovated to house inpatient support services and departmental offices.

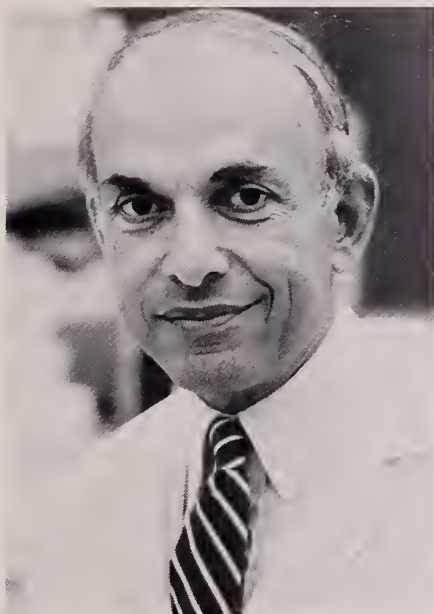
Highlights of the ceremony included tours, jesters juggling batons,

live music, caricature artists and a spectacular balloon launch. In front of a cheering crowd, seven-year-old Julie McCarrick, a cystic fibrosis patient, and five-year-old Alvaro Saraiva, a kidney transplant patient, signaled the official opening by helping Kennedy and Flynn cut the symbolic ribbon. □

## Chobanian Named Dean of BU Medical School

Aram V. Chobanian '55 is the new dean of Boston University School of Medicine, effective May 1988. A hypertension researcher, Chobanian has





Aram Chobanian

been affiliated with BU for 25 years. He was selected after a national search to replace John I. Sandson, who was dean for 13 years.

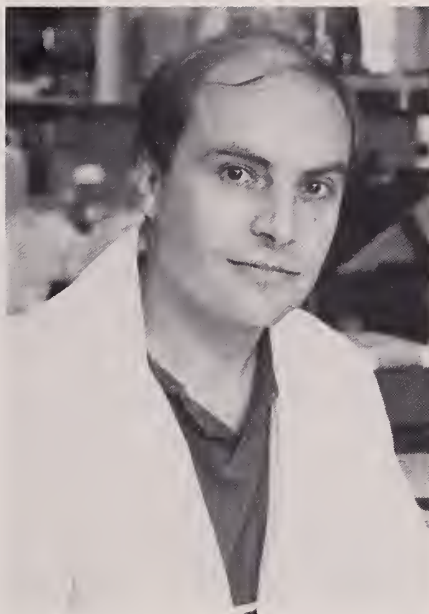
Chobanian, a professor of medicine and pharmacology, is also director of the Cardiovascular Institute of the BU Medical Center. He plans to "maintain a presence" in that research program in addition to his broader duties as dean.

A graduate of Brown University and HMS, Chobanian credits his interest in medicine in part to his older brother, Keran M. Chobanian, who is currently the physician for the Boston Symphony Orchestra. □

## Breakthroughs in Understanding Muscular Dystrophy Reported

A team led by Louis Kunkel at Children's Hospital has identified the protein deficiency that causes Duchenne muscular dystrophy (DMD), the most common and lethal degenerative muscular disorder. This is the latest in a series of advancements made by Kunkel and his colleagues in understanding DMD. Last July in *Cell*, they reported cloning the entire DMD gene, the largest known human gene.

In the December 1987 issues of *Cell* and *Nature*, Kunkel's group described DMD's missing protein, which they call "dystrophin," and its normal location in muscle cells where it is produced. They found that dystrophin is associated with "triadic structures,"



Louis Kunkel

which control the flow of calcium to muscle fibers in response to nerve stimulation.

DMD predominantly afflicts males and becomes apparent between ages 3 and 5 when affected boys begin

experiencing muscle weakness and pseudohypertrophy (apparent muscle growth) due to fibrosis. For years researchers had assumed that DMD was caused by lack of a muscle protein coded on the X chromosome. But no one had been able to identify the deficient protein until Kunkel, who is an assistant professor of pediatrics at HMS, first located the malfunctioning gene in 1986.

The researchers anticipate that improved understanding of DMD will lead to more accurate diagnosis and possibly to treatment. They now have a mouse model that has dystrophin deficiency and a genetic defect similar to humans, but not the characteristic muscle wasting and weakness. These mice may provide insights or at least a means to test chemical agents that may slow fiber degeneration. □

## Markey Supports Basic Research at HMS

The Lucille P. Markey Charitable Trust has awarded HMS an \$11 million grant to be distributed over the next five years. HMS is among 11 insti-



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tutions receiving financial support for basic medical research from the Markey Trust.

At HMS the grant will help support the program in the molecular and cellular basis of development. This is a cross-disciplinary effort—involving researchers from the departments of physiology and biophysics, biological chemistry and molecular pharmacology, and genetics—who will study the molecular basis of growth and development in higher organisms. The grant will finance equipment, laboratory and technical staff needs, and the addition of new junior faculty.

Lucille Markey, who died in 1982,

was a native of Kentucky. She and her first husband, Warren Wright, developed the Calumet Farm racing stables, which has bred eight Kentucky Derby winners. She continued to manage the farm after Wright's death, and later married Admiral Gene Markey.

As a result of earlier Markey Trust programs in basic science, HMS has five junior faculty who are Markey scholars and receive long-term support for their research. In addition, 28 doctoral candidates receive full or partial funding from the Markey Trust for graduate education in the medical sciences. □

people doing good work who are taking different tacks.

"Harvard is potentially a very creative place," said David Potter, chairman of the department of neurobiology. "It draws strong students and faculty—a mixture that provides great opportunities for the most exciting work. What these people actually do depends on the resources they have. Medical research is very resource-bound. Cutbacks in federal spending will have consequences."

The revolution in molecular biology has opened possibilities for major discoveries. New techniques and approaches have enabled Harvard researchers to isolate and clone genes responsible for inherited diseases. Other scientists are tracing the molecular basis of growth and development to better understand function and dysfunction—the basis for improved prevention, diagnosis and treatment of diseases.

"Work happening here now may lead to cures not dreamed of today," sums up William K. Stone, dean for resources. "Funds for discovery are a vote of confidence in Harvard's faculty and graduate students." □

## CAMPAIGN REPORT

### Funds for Discovery

Young physicians hoping to launch research careers need more than a bright idea to get under way. They need training, a laboratory, equipment... they need money.

Promising young researchers are often caught in the old Catch-22 bind. Grant awards are typically based on past research results, yet someone starting out doesn't yet have a track record. Plus, federal sources of funding such as the NIH are becoming more competitive to tap. The NIH has New Investigator Awards, but many deserving investigators are turned away.

One of the goals of the Campaign for the Third Century of Harvard Medicine is to raise \$25 million for "funds for discovery." The dean would like to generate a fund for the school to support "imaginative and exploratory new directions of investigation, young scientists beginning their research careers, and the training of postdoctoral fellows and graduate students."

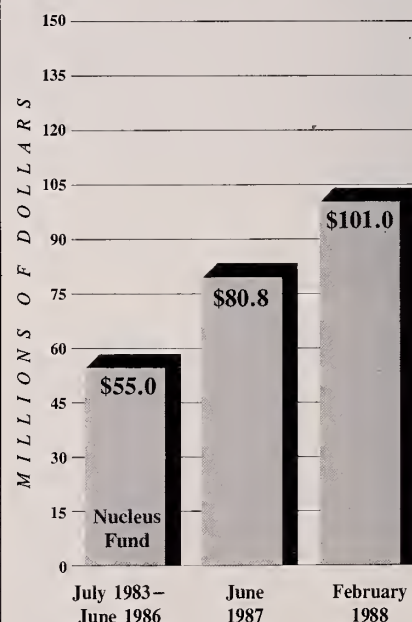
Significant scientific advances made by HMS faculty number in the

hundreds. There have been five faculty Nobel Prize winners. But as Harvard University President Charles Eliot said at his inauguration in 1869, "A good past is positively dangerous if it makes us content with the present, and so, unprepared for the future." (Eliot is the president who reformed the medical school curriculum, which had been apprenticeship-based, and raised entrance and graduation requirements.)

Lewis Thomas '51, co-chairman of the national campaign committee, has said that one of the greatest gifts he received from HMS was the awareness of "the limits of our knowledge." The message that he feels led so many of his generation into research and teaching careers was: "Medicine had come a very short distance in the lifetimes before our arrival, had a long way to go, and, best of all, would almost surely be upheaved by new scientific information during our own careers."

Scientists acknowledge that there is no *one* approach to solving complicated problems such as AIDS, cancer and genetic disease. They say that the likelihood of solutions increases if more money is dispersed to talented

### Campaign for the Third Century of Harvard Medicine



The Campaign reached \$101.0 million in gifts and commitments as of February 29, 1988. The Campaign goal is \$185 million.





AT HOME  
WITH THE  
HOMELESS



# On the Fringe of Society

by Jim O'Connell

Querulous and reluctant faces awaited me on that first July evening at Pine Street Inn's Nursing Clinic three years ago. My residency had ended two days earlier after a month as the Bigelow ICU senior, and I was buoyed by that titanic sense of invincibility that accompanies such passages.

I was hardly prepared for the tepid reception I received as I sat stunned through the nurses' introduction to the clinic: as the state's only independent nursing clinic, they had cared for the homeless and indigent for over a decade, through the silence and apparent indifference of physicians. The evening's other lesson was no less poignant. Perhaps I could manage scleroderma or leukemia, but the expertise of these dedicated professionals included maggots, lice and festering feet. There was much for me to learn.

The health care of homeless persons in Boston has traditionally been delivered by two unheralded groups—nurses and hospital housestaff. Tending to blistered feet and incipient

coughs is hardly a priority for those caught in the struggle for survival on the city's streets. Long waits in emergency rooms or walk-in clinics can mean loss of the night's bed, a hot dinner or dry clothing. The importance of outreach nursing clinics—where guests can attend to medical needs in the evening or early morning without pressure to secure meals and bed tickets—has long since been proven.

Virtually all encounters at Pine Street's clinic begin with a footsoak in Betadine and warm water—a ritual instituted by the staff not only for comfort and hygiene, but also as a sign of service and respect. I was struck by the image of weary pilgrims seeking refuge at the Inn, greeted with dignity as the dust of the road is cleansed from their feet. The response of the guests is remarkable; persons hardened by vicissitudes of a fate that has driven them to the fringes of society have come to trust the clinic providers. Over 90,000 visits were made to the Inn's clinic in 1987.

The homeless who seek hospital services are usually cared for by the

interns and residents who staff emergency rooms, wards and ambulatory clinics. Confrontations between the exhausted idealism of the housestaff and the disheveled non-compliance of the homeless are inevitable. We all remember performing assiduous evaluations of febrile patients at 4 AM only to have them sign out AMA before rounds. Doctors on hospital staffs and in private practice seldom have further opportunity to care directly for this population. Rather, care of the indigent is included in the myriad of responsibilities encompassing the 100+ hour work weeks of our newest and most beleaguered colleagues.

In the fall of 1984 the Robert Wood Johnson Foundation and the Pew Memorial Trust invited major cities across the country to submit proposals for pilot programs to explore the delivery of health care services to the homeless. Each city was required to have the support of local government, hospitals, shelters and service agencies. Boston was one of nineteen cities awarded grants of \$1.4 million over four years.

At the time I was grappling with a vestigial, late-60s social conscience while contemplating a fellowship in clinical oncology. My personal knowledge of the homeless was limited to a group of delightful clinic patients, who lived on the banks of the Charles River and were self-proclaimed connoisseurs of Beacon Hill leftovers. Mostly I was drawn to their stories, some real and some woven from fragments of elaborate paranoias, and to their sincere appreciation for a doctor's care.

The opportunity for a position as an internist in the new project arose, and with the enthusiastic support of several mentors and friends, including John Potts, John Stoeckle and George Thibault, it just seemed like the right thing to do.

Boston's Health Care for the Homeless Project began delivering services in July 1985. Over 6,000 people have been treated since that time, and the program has been a remarkable success. Based at Boston City Hospital, our health-care team is one of three sponsored by the project. It consists of a physician, nurse practitioner, social worker and coordinator. We spend three nights a week at Pine Street Inn and I spend an additional afternoon and evening at Long Island Shelter, a city facility with almost 400 beds located on a scenic Boston Harbor island.

Two primary care clinics are con-



Jim O'Connell and patient at Pine Street Inn Clinic.





ducted each week for homeless patients at BCH, and twice each week formal hospital rounds are made with the nursing staff of each of the shelters. The project includes two other teams: one based at Lemuel Shattuck Hospital, which operates a 20-bed respite unit and runs a daily clinic at St. Francis House in the Combat Zone; and another team that cares for the several family shelters in the Boston area.

Working in the shelter clinics has been a humbling experience. The medical problems of the homeless are inextricably woven into a complex web of poverty and politics. Hospitals have been slow to realize that the unique needs of this population defy traditional medical standards. Despite appropriate and often prolonged inpatient care, persons are often discharged to the shelters and streets with impractical treatment plans: bedrest with elevation of a swollen extremity, antibiotics four times a day,

low sodium or low cholesterol diets. The patient's failure to follow these regimes is inevitable, exasperating both physician and patient.

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High-quality health care services for homeless populations depend on close communications among physicians, nurses and social workers, as well as between hospitals and shelters. Several project innovations have helped to incorporate the homeless into the mainstream of the delivery

system. Outreach teams in the shelter settings have been effective in both the triage and treatment of acute and chronic illnesses, minimizing the use by this population of the more costly hospital-based services.

Likewise, hospital rounds with the shelter staffs have proven invaluable. Not only are frightened patients comforted by familiar visitors, but the shelter nurses are able to share in the discharge planning with the housestaff and social workers. For the past two years, senior residents from BCH have conducted continuity clinics at Pine Street. Such experience has made these residents staunch advocates for the homeless among their peers. Last July one of them, Thomas Bennett, accepted the second physician position with the project after almost a year's vacancy, despite intense advertising.

As a result of such measures, the homeless of Boston are seldom "dumped" onto the streets after an admission. Referrals to the hospital





from the Pine Street Clinic are understood by the housestaff to be a small fraction of those seen. Mutual respect and shared responsibility have brought responsiveness to the system and high-quality health care to the homeless.

The medical problems of the homeless are rarely exotic. Common illnesses are magnified by constant exposure to the extremes of temperature, crowded conditions and poor hygiene. At the same time, such illnesses are dwarfed in the minds of the chronically mentally ill and the substance abusers.

A multiply-resistant strain has been responsible for more than half of 65 tuberculosis cases diagnosed among Boston's homeless during the past three years, mostly centered in one large shelter. Despite seemingly impossible odds, virtually all of these patients have completed, or are continuing, 12 to 18 months of daily or twice-weekly multiple-drug therapy. Pneumonia is commonplace, especially pneumococcal. The ravages of alcohol are apparent everywhere. Foot ulcers, skin infections and infestations abound.

The tragedy of AIDS is particularly horrifying in the shelters. All but one of the first thirteen cases of AIDS diagnosed in the shelters of Boston involved intravenous drug use as the major risk factor. The incidence of HIV infection is rising dramatically, especially among younger and newly-homeless guests.

Volunteers and staff too often wit-

ness the agony of those last frail months of life spent on shelter floors and in MBTA doorways. The imagination quivers in an attempt to grasp the abject abandonment of fellow human beings who have lost home, family, friends, jobs and self-esteem to some powerful drug, only to find their subtle death wish vividly fulfilled in this fatal and isolating disease. No housing whatsoever currently exists for these people dying of AIDS, though none who have remained on the streets have been able to give up the drugs, and nearly all have continued to share needles.

A study of the homeless in Chicago

by Peter Rossi last year found that their median income was about three dollars per day—far below the poverty level and just about enough for two packs of cigarettes or a few rides on public transportation. Four in five persons were “disabled” by medical and/or psychiatric illness, or by a prison record.

Yet the homeless have become a cross-section of American society. The traditional skid row alcoholic male is now joined by families with small children; adolescent runaways; veterans of Vietnam, Korea and World War II who have sought anonymity on the streets; men and women impoverished by loss of jobs or urban gentrification; and the elderly on limited or fixed incomes. Solutions must therefore recognize not only the extraordinary poverty and disability, but also the marked heterogeneity of this population. No simple answers are possible. Adequate housing is necessary, but not sufficient; society must reconsider its basic political and economic tenets if a permanent solution is to be found.

In contrast, excellence in the delivery of health care to the homeless of Boston is both possible and practical. I am convinced of a genuine concern within the medical community for the poor and downtrodden. Experience has shown that doctors working with health care teams in hospitals and outreach sites can use the system effectively. A separate health care system would fail because this population is migratory, tends toward episodic and emergency care,





and utilizes multiple facilities within the city.

The pilot program has demonstrated that a small number of physicians and health care teams, cognizant of the needs and idiosyncrasies of the homeless, can organize a network of hospitals, shelters and social services throughout the city for the delivery of high-quality and cost-effective health care. Boston currently has 5,000 to 10,000 homeless persons, and the three such teams have seemed to suffice. These teams must be part of the teaching hospitals of the inner city and work as colleagues with other professionals within those hospitals.

Reflections on career choices are often fraught with a longing for roads not taken. Each of us had reasons for entering medicine, although few of us had plans that survived the twists and turns of our prolonged apprenticeships. I entered with a desire to

sity of the emergency room, or the constant daily exchange of new knowledge can be a powerful reminder of how far my career has strayed from a world where competency and familiarity came with such ease and excitement. At times I fear that I will eventually exist, like many of my patients, on the fringe of my professional society.

Such melancholia aside, the homeless have awakened many of the simple ideals that brought me to Vanderbilt Hall as a 30-year-old holdout from a past era. Sickness and suffering per-

meate the shelters and soup kitchens, and I have been given the chance to ease some of the pain and cure some of the ills. In return I have the gratitude of those who have few others to trust and little else to give. Ennui and routine have not yet set foot in my cramped office, and I could hardly ask for more. □

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*Jim O'Connell '82 is acting project director of Boston's Health Care for the Homeless Program. He is also a member of the section of general medicine at Boston City Hospital.*

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## Mixed Company

by David Stasior

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*In a city blessed with  
the finest medical institutions  
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care system.*

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help the sick, and debated the life of a country doctor or practice in a large, urban teaching hospital in the city. Serendipity forged an unexpected, albeit short, path.

Pine Street Inn lies only eight blocks from MGH and in the late afternoon shadows of New England Medical Center, University Hospital and BCH. In a city blessed with the finest medical institutions on earth, Pine Street seemed a netherworld in the health care system.

A haven for the destitute of Boston since 1916, this private institution has preserved a tradition of offering shelter, food and clothing to all who come through its door. The challenge to physicians was carefully articulated by the nurses that first evening I spent at the Inn, and in these three fulfilling years I have come to appreciate such wisdom and candor.

Yet at times the yearning for the precision of ICU medicine, the inten-

Our years ago, a handful of first-year medical students had a keen desire to serve underprivileged residents of Boston. These students brainstormed, talked with faculty, visited clinics and shelters throughout the city, planned and raised money. Their efforts gave birth to the Urban Health Project, a program designed to introduce Harvard Medical School students to the people and health care in underserved neighborhoods throughout the Boston area (see *Bulletin*, Winter 1985).

The program placed 10 students, during the summer between their first and second years, in a variety of clinics, shelters and community organizations. These 10 students, after a rich, exciting and often troubling summer, planned and raised money for the next crop of first-year students. That class, in turn, laid the foundation for members of the Class of '90 to continue the Urban Health Project during this past summer.

The Urban Health Project has retained its original format. Fourteen students from the Class of '90—thirteen from Harvard and one from Tufts—worked in a variety of settings, including a youth program in Roxbury, a chronic care facility in Mattapan, a young mothers' program at Children's Hospital, and a shelter for the homeless in South Boston. Stu-

dents spent four and a half days working individually in their placements and met on the remaining half day as a group.

My family's desire to live by biblical principles and my own desire to learn more about the homeless encouraged me to apply. My placement was St. Francis House, a daytime shelter for the homeless in Boston's Combat Zone. Paul Wise, a pediatrician and Harvard faculty member, was my faculty advisor for the program. He added valuable insights during our weekly meetings.

Throughout the summer, I tried to capture in writing the people, feelings and issues that encompassed my experience. I've taken the following samples directly from my diary, only changing the names and a few details to insure confidentiality.

### June 8

At 8:45 this morning I hid in a shadow on Boylston Street and surveyed the scene. St. Francis House loomed 10 stories high, standing between a large, vacant parking lot and narrow Bumstead alley. A knot of figures, milling about the entry way, overflowed onto the sidewalk as a broken string of men. One pulled a grocery cart stuffed with garbage bags, one vomited, and another wore a suit and tie; but all looked downtrodden. At 9:00 the





main door opened, and the men slowly trickled in. I followed, marking my first day of work.

The receptionist in the lobby directed me through a maze of rooms and stairwells to the volunteer office. Jim, the staff member in charge of volunteers, welcomed me warmly. As we began to tour the building, he told me the history of St. Francis House. In 1984 two Franciscan priests had organized the purchase of the old Boston Edison Building. With time and help from their parish, they had converted the first floor into a dining area, the second floor into a day center, and the third floor into office space and storage. The administrators now hope to rent the upper floors, perhaps some to the state's Social Services Department.

Jim explained how the staff distributes clothing, why they had placed the clinic off the common room, how they feed 500 people with only 100 seats, and where the police officer typically stands guard.

He also introduced me to the "guests," as the staff refers to them. I shook hands with Chipewyan Chuck,

a true-blood Chipewyan, wearing layer upon layer of clothing, with yellow eyes and a knee slapping guffaw. Randy, pulling his marines cap low over one eye, rabbit-punched my shoulder. His arm pictured more women than the dress section of a Sears catalog. A short, squat little man with soiled pants shuffled through the common room to the bathroom, supporting himself on each chair in his path. Towering Gabriel introduced himself with an exaggerated bow and sweep of his hand. He proudly displayed two bizarre sketches, informing me that he had once studied at London's Royal Academy of Art. A scrawny, dark-haired fellow stood in the corner, lifting his left foot, dropping it, lifting his right foot, dropping it.

As Jim introduced me to the guests, I felt a whole flood of emotions. Fear prickled the hair on my spine as one burly man grinned maliciously and bragged that he had spent over a third of his life in solitary confinement at Walpole. With most of the guests, I felt embarrassed for intruding. More than once, when a festering hand was

extended my way, disgust welled up inside. And because so many of these lives seemed irreversibly scarred, I could not fend off sadness.

### *June 25*

While climbing the back steps to the clothing room, I mulled over style preferences. We actually query each guest in the clothing line whether they prefer jeans or cords, light or dark, sneakers or shoes. Many of the guests wear the same clothes for days, even weeks, on end. Their clothes, no matter what style, shape or color, are utterly destroyed.

On a trip back to the lobby, Father Peter pulled me aside and asked how I was doing. I reported that we had already worked through half the clothing list. He cautioned me, suggesting that I was not at St. Francis House to set records in clothing distribution. Rather, when I sit down to discuss what type of clothing the guest prefers, I can begin the long, difficult task of forming a relationship.

When I finished distributing clothing, I slipped into the dining room for lunch. Today's meal ranks as the



craziest so far. I spotted Gabriel near the piano and sat down at his table, one seat away. A guest, with red magic marker adorning his trunk and neck, alternately played gorgeous bars of Chopin and stuffed fistfuls of casserole into his mouth. Jack, the staff member in charge at lunch, kept a wary eye directed at the piano. Gabriel asked me to name the longest nerve in the body. After I replied, "the sciatic nerve," he said I had picked the right nerve but had pronounced it incorrectly. The piano player stepped over and took my drink. Jack leaned toward me and whispered that the piano player had recently escaped from a mental home.

Gabriel began a story about an eccentric friend in London who wears silk dressing gowns with burn marks. Gabriel laughed, and just for an instant, I could see his spittle heading my way. One drop hit my temple, one hit my chin, and one disappeared into my tuna fish casserole. I looked down, hoping to God I could locate that one drop.

Then the police arrived, pink paper in hand. The piano player caught on right away. He began shouting (obscenities deleted), "Where are my rights? What are you doing to me? What have I done to you?" The police cornered him, cuffed him and forced him out the side door. Gabriel asked if anyone else would like to play the piano. I threw out my tuna fish.

### **July 14**

After lunch we headed back up to the clinic. Roger, as usual on Tuesdays, was waiting patiently in the common room for the clinic to open. I'm still amazed by the number of patients we see in a room no bigger than a Vanderbilt single. Sheila ushered Roger in and took a blood sample while I asked him about his week. He confessed that, once again, desserts had gotten the better of him. Roger, despite blood sugars over 300, refuses to control his diet.

In some ways, Roger typifies many of our guests at the shelter. He knows what to do but can never seem to do it. So many of the alcoholics similarly struggle, promising that, someday, they will never drink again. I recently met a chronic gambler who lost his shirt, boat, apartment and everything else on the Leonard-Hagler fight. He too is somehow controlled by his addiction.

Labeling our guests as "addicts," though, frees them—at least in my

mind—from moral culpability. Their "disease" drives them to act the way they do. At a gut level, though, I'm not sure I agree with this. Aren't these people accountable for their drinking, for staggering through the commons at 2:00 in the morning, for rotting their innards, for spending every begged dime and almost sober thought on alcohol? I just don't know.

Tom, a Micmac Indian from Nova Scotia, shuffled through the door with his usual greeting: "Got any heroin?" Tom fits the stereotype of a rugged, worn street person. His thick, black hair hangs down long in the back; his nose twists first right, then left; his jeans are always filthy, and he seldom wears a shirt.

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*Beth is very real, and she  
very much wants to sleep in  
her own bed, in her own  
apartment, where she can clip  
her own nails.*

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In fact, the scars criss-crossing Tom's chest and abdomen are the first thing you notice about him. Some are long and wide, others are small, and there are more than I could possibly count. Every time he visits the clinic he tells me a story about another one. Today he explained that a long, wide scar with puckered edges was from a surgeon's knife: the doctors had opened him up after an angry heroin dealer stabbed him 37 times.

In spite of his gruesome stories, Tom possesses a quick wit and pleasant charm. He often bubbles over with dry jokes that send eyes rolling and heads shaking. When he leaves, he puts his gnarled hand on my shoulder, winks and offers a hearty, "Good job, Doc." He's likeable. Once again, I wrestle with troubling questions: Why does Tom, aged 42, with a sharp mind and congenial manner, live on the streets? I ask Tom why. He says the streets are his home, the street people, his friends.

After cleaning and bandaging Tom's torn knuckles, I welcome Beth into the clinic. She visits once every few weeks to have her nails clipped. Beth—round, soft-spoken and shy—slowly undoes the laces on her shoes. Twice a month she boards the "E" train at Boylston Street and rides to Brigham Circle. There, she carefully follows her well-worn path into the Brigham and paces off the steps to her psychiatrist's office. According to Beth, her doctor asks a few questions and, on occasion, changes her medication.

Although a half-way house provides a roof over her head, Beth has desperately wanted to live in her own apartment, away from the noise of angry women. She has no privacy in the shelter. Her nailclippers, comb and shampoo vanish. Money is, of course, just one barrier to her dream. She has diligently saved a portion of her "cuckoo" checks each month. Unfortunately, she has saved enough for the government to claim her assets are too high for continued aid, but not enough to afford her own place.

I thought about trying to rig some account for her, holding her money while she saved some more. But then I wondered about circumventing the system. If everyone exploited the law, our government would be in even deeper trouble than it is. The government, though, is a nebulous bureaucracy somewhere far away from our clinic. Beth is very real, and she very much wants to sleep in her own bed, in her own apartment, where she can clip her own nails.

### **July 30**

This long, long day has finally drawn to a close. This morning Gabriel crawled into St. Francis House, looking far worse than usual. He vomited over 12 times last night. Without his daily diet of four quarts of wine, he had begun to shake and sweat. His temperature soared. I accompanied him to the hospital and stayed with him during the many hours needed to secure a room. At one point, the hospital tried to release him.

During the eternal wait, Gabriel shared memories: his father drinking, his former wives, six months of sobriety, little boys chasing him off Revere Beach with stones. I asked if he had any special friends. He laughed. He said on the street you sometimes share a secret doorway where no dogs yip or large women whack with brooms, or sometimes you share a warm grate



tucked away in a dark alley. But inevitably he takes your bottle or you take his. "In reality," Gabriel concluded, "I have no friends."

#### August 4

Gabriel finally looks better. He survived pneumonia, DTs and the hospital's disdain. Visiting him today brought to the fore so many thoughts that have occupied me this summer. I've wondered how much of the misery I've witnessed stems from free will, how much from society and the "sins of our fathers." Back in June, I could not imagine anyone willfully bringing such suffering on themselves, inching closer and closer to the grave. Society and "the fathers" had to shoulder the blame.

When I expressed that view, a chorus of opinions challenged me. The psychiatrist facilitating our discussions about the Project, Robert Coles, asked if I would take my argument to its limit and eliminate free will. Someone mentioned that few medical students would deny the value of their intelligence, diligence and skill, believing that fate alone carried them through the doors of Vanderbilt

Hall. Someone else shared an anecdote: an alcoholic father had twin sons. When they grew up, one became an alcoholic, one never drank. When the twins were asked why they chose their respective lifestyles, both twins answered, "With a father like that, how could I be anything else?"

As the summer progressed, I grew convinced that the pain and suffering result from some mix of individual choices and larger, more global, forces. Then I questioned the usefulness of pinpointing responsibility. No matter how we assign blame, our guests at St. Francis House struggle with the everyday challenges of life. Whether their troubles reached out from their past or tumbled down around them as they made poor decisions, our guests desperately needed a warm meal, friendly handshake and shelter from Boston's cold, wet streets.

On another level, though, we do need to know who should bear the blame. If society is at fault, then society ought to labor and spend on behalf of our guests. If, on the other hand, individuals willfully self-de-

struct, then society might better use its energies and funds on people willing to help themselves. Scott Kim, a third-year student who spent the previous summer at St. Francis House, hopes to explore these issues by adding a PhD in philosophy to his MD.

I find myself drawn toward the policy and organizational issues. How could the clinic at St. Francis House function more effectively? How does the government help or hurt? And how does the health care community in general respond to the plight of the homeless?

The John F. Kennedy School of Government runs a program in public policy that would let me earn a masters in public policy by extending my education for another year. If I can stomach still more debt, I could answer many of my questions and arm myself to provide excellent care in both the clinic and policy arenas. Perhaps some day I'll be able to help men and women like Gabriel cross the threshold from sickness to health. □

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*David Stasior is a member of the Class of 1990.*







# RISKY BUSINESS

## *Fallibility, Disability and Nuclear Weapons*

by Herbert L. Abrams

**I**n 1980/81, while still Philip H. Cook Professor of Radiology at HMS, I spent a sabbatical year as a fellow at the Center for Advanced Study in the Behavioral Sciences, an independent "think tank" located on the campus of Stanford University. I had been deeply concerned about the implications of the nuclear arms race, had been a national board member of Physicians for Social

Responsibility (PSR) for a few years, and had helped organize International Physicians for the Prevention of Nuclear War in early 1980.

During my year at the center, I completed three major projects: two books in my field of cardiovascular radiology, a health policy study on the impact of the underutilization of innovative technology, and an examination of the "Medical Problems of



Nuclear War." The year was also an opportunity to become acquainted with the activities of the Stanford University Center for International Security and Arms Control, co-directed by Professor John Lewis, a political scientist, and Sidney Drell, a physics professor who is associate director of the Stanford Linear Accelerator. On my departure, they asked me to join the center as a member in absentia, which involved occasional participation in colloquia every few months.

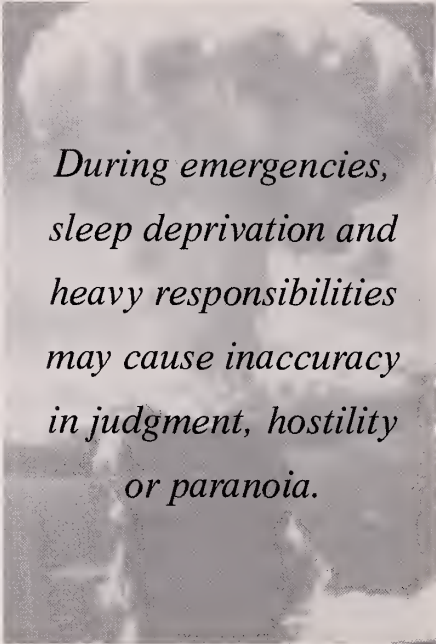
On my return to Boston in 1981, my interest in the problems of nuclear weapons and nuclear war continued. I participated in many symposia around the country for PSR, as well as seminars at the Kennedy School on the arms control process. My conviction was growing that I wished to spend professional time outside of medicine in more formal study of international security problems. Stanford established a tenured professorship for me in 1983, and I informed Dan Tosteson, Dick Nesson and the Brigham trustees of my resignation, to become effective at the end of 1984.

Meanwhile, the Stanford Center for International Security and Arms Control had discussed a larger commitment of time with me. In January 1985 my family and I moved back to Palo Alto, living once more on the campus, with my time split between the center and the medical school.

I had become persuaded that neither superpower would intentionally initiate a major nuclear exchange, and that nuclear war was far more likely to come about through misunderstanding, miscalculation, inadvertence or "accidents." The problem of accidental or inadvertent nuclear war became my primary focus of research and teaching, in the belief that a full understanding of all factors involved might lead to more creative approaches to prevention.

In the spring of 1986, I began to teach a lecture-seminar course on this subject in the political science department at Stanford, while simultaneously investigating the sources of human instability in those who handle nuclear weapons. Much of this material appeared in an article I wrote for Medical Implications of Nuclear War, published by the National Academy of Science Press in 1986. More recently, I have been concentrating on the problem of disability among the leadership, that is, the decision-makers.

The following is a summary of



*During emergencies,  
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or paranoia.*

some of this material. I would caution the reader only that the canvas is far larger, the tapestry far more complex, than this article or my mixed metaphor can possibly convey.

On May 26, 1981, an EA-6B Prowler jet crashed on the deck of the aircraft carrier U.S.S. *Nimitz* off the southern coast of Georgia, killing 14, injuring 44 and damaging 20 aircraft. Six of the fourteen dead men had smoked marijuana and at least three of them had smoked it heavily or had used it shortly before the crash. The *Nimitz* had been out to sea for well over two weeks.

Navy Secretary Lehman was satisfied that "pilot error"—not drugs—had caused the crash. He may have been right about marijuana. Ironically, at autopsy the pilot of the plane was found to have 6 to 11 times the normal blood level of brompheniramine, an antihistamine that had not been prescribed by a military physician. Such a level may cause sedation, dizziness, double vision and tremors.

A congressional committee concluded that the effects of the drug, together with other stress factors, might well have been responsible for the crash. The investigation of the *Nimitz* also uncovered regular use of amphetamines by many crew members to sustain themselves during long work days.

The matter of drug abuse assumes special importance in light of a congressional sub-committee finding that a large number of drug incidents and arrests involve personnel working with nuclear weapons. In one case, four marijuana pushers in an army nuclear missile battalion were identified. An army husband and wife team managed the enterprise and indicated that 120 others in the unit were users. Twenty-three were in the nuclear weapons corps.

At another army nuclear missile site, a company commander disregarded for three months a subordinate's request for a drug detection program. The commander's view was that the likelihood of replacements was slim and he therefore ignored the army's policies on drug enforcement until some of his soldiers were arrested for possession.

All agree that the one sector of the military requiring the most stable and reliable personnel are the forces that control and manage our nuclear arsenals. So it is prudent to ask, how stable are they? How are they chosen? Is the screen working? What is the nature of the work and how does it affect the tens of thousands involved with nuclear weapons?

Over a normal four-year tour of duty, Inter-continental Ballistic Missile (ICBM) launch crew members spend up to a year's time in launch control centers. These underground bunkers, with their attendant inactivity, may come to resemble a stockade and may induce high levels of anxiety and alienation.

Crews on long submarine patrols face the stress of leaving their families behind for two or three months at a time. On patrol, isolation, monotony and confinement affect all but the most stable. During emergencies, sleep deprivation and heavy responsibilities may cause inaccuracy in judgment, hostility or paranoia.

Disruptions in internal timing systems and "biological clocks" are a serious public health concern. As Harvard's Martin Moore-Ede has pointed out, in industries with round-the-clock work shifts, accidents and errors increase between the hours of 3 and 5 AM, a time when normal circadian rhythms are at an ebb. Pilots flying aircraft simulators make more errors at this time, and the incidence of single-vehicle truck accidents is eight times higher near 5 AM than at other times of day.

Work schedules themselves may cause degraded job performance.



Circadian cycles in humans rotate every 24 to 25 hours. Weekly work rotations, which force people to adjust to eight-hour time shifts each week, barely allow adequate time to settle into one pattern. The feeling is one of perpetual jet lag.

The 18-hour duty cycle in the navy's nuclear submarines is not in keeping with the body's 24- to 25-hour circadian rhythm either. Among naval crews, studies have shown that this desynchrony manifests itself in a high incidence of insomnia, emotional disturbance, and impaired coordination.

Stress in general, no matter what the source, has been associated with accidents of all types. In crises, stress is considerably heightened and the chances of operator error enhanced. The nuclear reactor accident at Three Mile Island is an example of multiple errors associated with a crisis situation. Similarly, the Chernobyl disaster involved gross negligence and a series of errors in judgment, all in the name of safety.

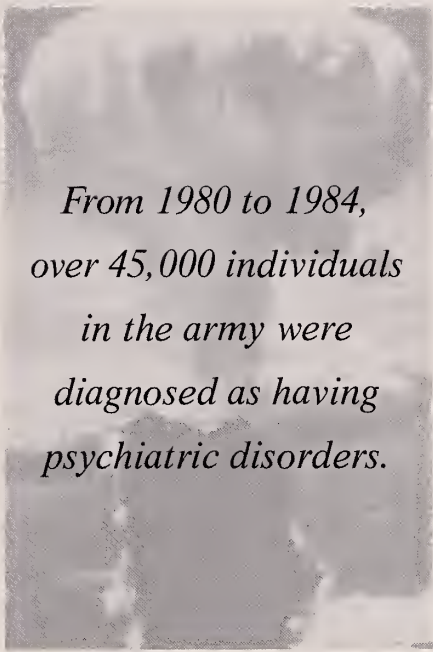
Whether in nuclear plants, in silos or submarines, there are factors other than boredom, inactivity, anxiety and altered sleep patterns that profoundly affect behavior. These include alcohol and drug use, and psychiatric disorders.

Drug use was not considered an important problem among nuclear weapons personnel until 1970 when military authorities realized that use had become widespread. Some years later, the Department of Defense conducted a thorough survey of drug and alcohol use in the U.S. military, questioning over 15,000 randomly-selected personnel. Twenty-seven percent had used drugs within the last 30 days. Marijuana was used most often; 19 percent smoked it at least once a week. But amphetamines, cocaine, hallucinogens and heroin were also consumed.

Ten percent of the 18 to 25 age group experienced lowered performance, and 19 percent had been "high while working" (almost half of them on 40 or more days during the previous year).

The consumption of alcoholic beverages was widespread in all services. Drinking on duty was also common: 28 percent of army personnel reported drinking on duty; 21 percent in the navy; 19 percent in the marines; and 15 percent in the air force. The highest prevalence of drinking was reported among the senior officers.

Alcohol effects were involved in



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15 to 20 percent of the major naval aircraft accidents in 1979. In six army accidents during a five-year period, drugs found in the blood samples of military aviators included marijuana, cocaine and methaqualone.

A more recent study in 1986 of 17,000 military personnel worldwide found a decrease in drug use to 12.5 percent. Of these, about half had used marijuana during the previous month, while the remaining had had recourse to PCP, LSD, hallucinogens, cocaine, amphetamines, tranquilizers, barbiturates, heroin and other drugs.

The problem remains a particularly urgent one among those responsible for handling nuclear weapons. Line commanders facing a personnel shortage may use someone for short-term duties, even if they know that person is unstable. A commander may lose necessary personnel by strictly enforcing regulations. Through frequent drug searches, he risks alienating his troops and lowering morale. There are good reasons to tolerate drugs rather than enforce discipline.

Psychiatric illness is also a problem. From 1980 to 1984, over 45,000 individuals in the army were diagnosed as having psychiatric disorders. Approximately 4,500 were schizophrenic, while an additional 3,000 had other psychoses.

The risk of mental illness is especially acute in nuclear armed submarines. In a comparison of submarine crews with a control group of surface fleet personnel, the neuropsychiatric

illness rate between 1968 and 1973 was twice as high among submariners.

In the Soviet Union, alcoholism is a health problem of epidemic proportions. The high death rate from acute alcohol poisoning, 100 times that in the United States, indicates the extent of abuse. Over the past 20 years the per capita consumption of alcohol in the U.S.S.R. has more than doubled.

Alcohol abuse throughout the ranks of the Soviet military has also been documented, and is higher than in the civilian population. Even though Soviet army regulations forbid alcohol consumption, alcohol dependence affects one-third of the Soviet military, according to one estimate.

Hard drug use has not been a major Soviet problem in the past; the annual death rates have been far lower than in the U.S. But it is an increasing problem, according to recent reports, and there are now at least 12 drug abuse clinics in Moscow. Large numbers of soldiers returning from Afghanistan are said to have used hashish and to have transported it into the Soviet Union.

About 105,000 to 110,000 individuals are involved in handling U.S. nuclear weapons. The military takes special precautions to ensure that these people are suitable for their positions. The heart of this effort is the Personnel Reliability Program (PRP), designed to screen out unstable individuals. Among the "critical" positions that fall under PRP jurisdiction are commanders of nuclear weapons delivery units and pilots and crews of delivery aircraft.

The initial screening procedure includes a background investigation and security clearance. A medical evaluation is required, but it may begin and end with a review of the candidate's medical documents. Personnel files are also reviewed and the candidate is advised in a personal interview of the nature of PRP.

Failure to meet PRP qualifications results in decertification. Personnel are disqualified for alcohol or drug abuse, negligence, court-martial, serious civil convictions, aberrant behavior and traits that might lead to unreliable performance.

The Soviet screening program for nuclear weapons personnel probably shares many features with that of the U.S. It is impossible to be certain because of the lack of adequate information.

Because secrecy surrounds many



PRP assignments, medical officers may have little knowledge about the positions for which they screen personnel. Furthermore, the initial review need not include a medical or psychiatric examination. In some cases, records give no indication of serious flaws that render an individual unfit for nuclear weapons duty.

Systematic, meaningful follow-up by trained personnel might seem a logical step. Instead, supervisory "managers" are relied on to report unusual behavior, and co-workers are expected to evaluate each other. Needless to say, inertia, camaraderie and peer pressure may hamper honest evaluations of reliability.

The data on PRP decertification are disconcerting. From 1975 to 1986, an annual average of 110,000 individuals—all screened by the PRP—were employed to handle nuclear weapons (Table 1). During that period, 57,000 individuals were decertified, about 4,700 per year on average. If the assumed length of service is one year, that amounts to 4.3 percent of the total; if two to four years, 8.6 to 17.2 percent. Over the 12-year period, 33 percent were decertified for drug abuse, and 9.5 percent for alcohol abuse. Psychological problems were

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also prevalent. (Table 2).

Independent evaluations of the PRP are not available. All we can be certain of is that at any one time there are thousands of unstable individuals charged with the day-to-day

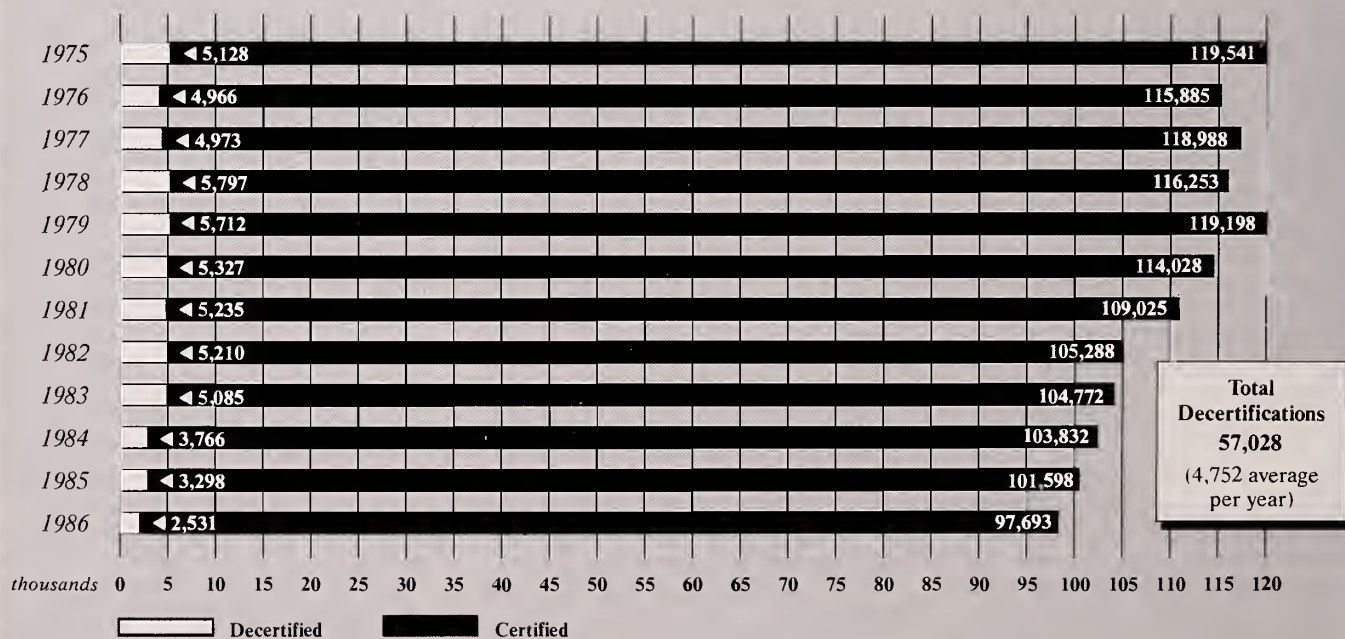
responsibility of handling nuclear weapons.

There seems to be little question that the screening process can be improved. All candidates without exception should be examined by a trained physician. The physician should be aware of the work to which the individual is being assigned. The personal interview now designed to advise applicants of the nature of the program should be extended to assess the candidate's emotional stability. The screening procedure should incorporate standardized psychological testing. Records of the individual's past emotional, social and vocational history should be available to examiners. There should be tighter control exercised over drug and alcohol abuse, and systematic monitoring of personnel by trained professionals established.

In the meantime, what kind of security threat is posed by drug-related and psychiatric disorders in the military?

Unreliable personnel with immediate access to strategic nuclear weapons, such as launch capsule officers for silo-based ICBMs, are a potential hazard. But all army and air force weapons are fitted with

## Personnel Reliability Program: Totals Certified and Decertified Annually, 1975-1986



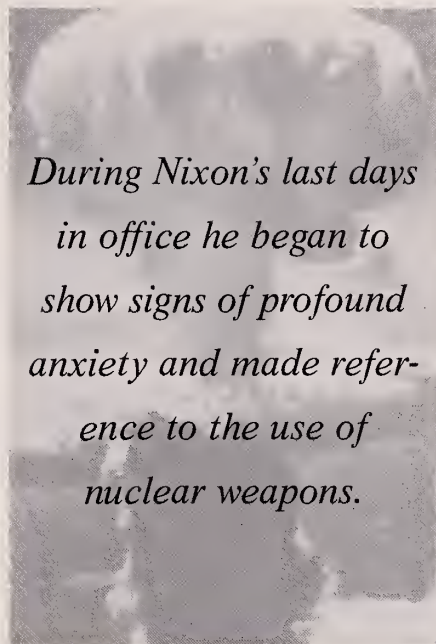
Source: DOD, OSD, "Annual Disqualification Report, Nuclear Weapon Personnel Reliability Program," RCS DD-COMP (A) 1403, Calendar Year Ending December 31, 1975; 1976; 1977; DOD, OSD, "Annual Status Report, Nuclear Weapon Personnel Reliability Program," RCS DD-POL (A) 1403, Year Ending December 31, 1978; 1979; 1980; 1981; 1982; 1983; 1984; 1985; 1986.



"permissive action links" which disable the weapon until the proper combination is inserted. An additional important safeguard is the "two-man rule," requiring at least two people to act at critical points in the nuclear release chain.

In times of tranquility, it is virtually impossible for one—or even two or more individuals—under the influence of drugs to effect a weapons release. In times of crisis, however, these same measures to guard against an unauthorized launch tend to contradict efforts to ensure launch readiness. If safeguards are loosened to enable rapid response to an attack, the door is opened for unstable personnel—paranoid, tense, aware of an adversary's war preparations—to have an impact on the system, particularly when interruptions of command and control occur.

Crew members on ballistic missile submarines may also present a security risk. Because the navy doesn't maintain permissive action links on its Submarine Launched Ballistic Missiles (SLBMs), the captain and several officers on board can decide to launch a nuclear weapon without higher authorization. Permissive action links are also lacking on aircraft carriers and



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other surface vessels that carry nuclear weapons.

Perhaps the greatest threat to security involves unstable individuals who have access to theater or tactical nuclear weapons, including nuclear

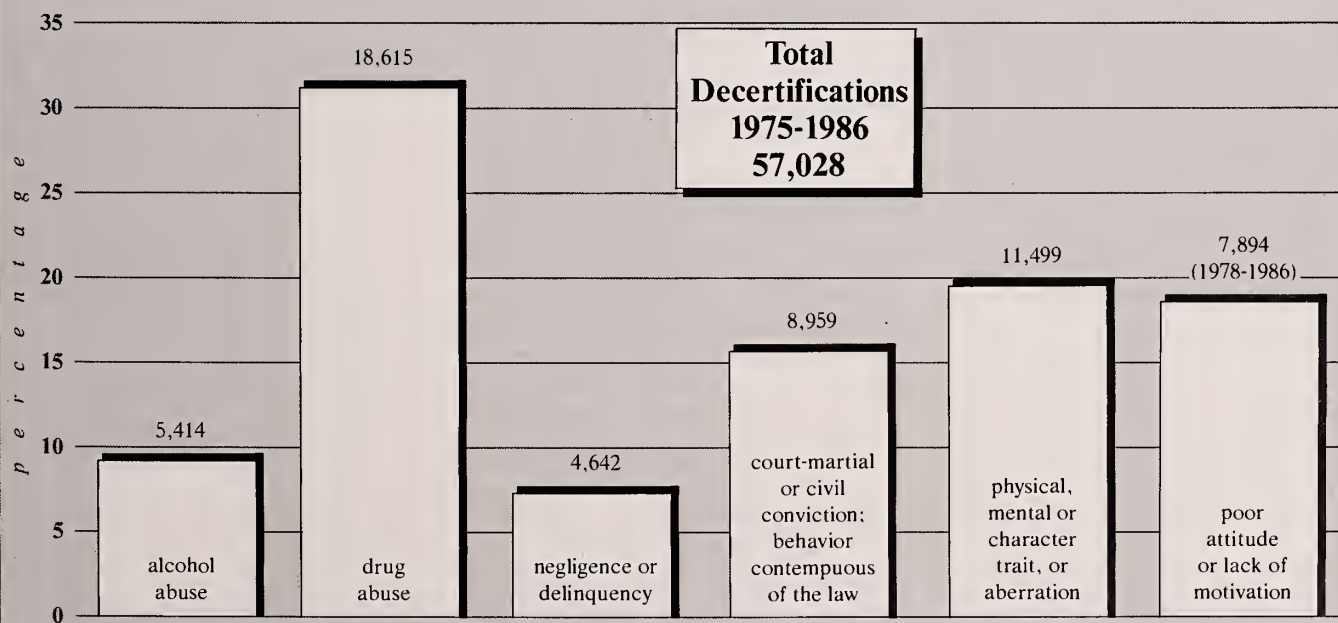
land mines, artillery projectiles, and short-range ballistic missiles. The controls over these weapons are looser. During a crisis, they are apt to relax even more as commanders release authorization codes to personnel in order to avoid delay should the use of the weapons be ordered.

**I**n focusing on the problems of human instability in the microstructure—those who work with nuclear weapons on a day to day basis—there is a danger that we may exaggerate their impact. The macro-structure—the decision-makers—have far more power and are under far greater pressure. They will clearly play the central role in the response to crises.

Much of the literature on the reaction of decision-makers focuses on perceptual problems in crises; on the manner in which stress narrows the cognitive process and restricts spatial and temporal awareness; on the role of time pressures in augmenting the incidence of errors; and on the group dynamics that evolve and ultimately substitute consensual validation for critical assessment.

The bulk of these studies have dealt with the behavioral responses

## Personnel Reliability Program: Decertifications by Reason, 1975-1986



Source: DOD, OSD, "Annual Disqualification Report, Nuclear Weapon Personnel Reliability Program," RCS DD-COMP (A) 1403, Calendar Year Ending December 31, 1975; 1976; 1977; DOD, OSD, "Annual Status Report, Nuclear Weapon Personnel Reliability Program," RCS DD-POL (A) 1403, Year Ending December 31, 1978; 1979; 1980; 1981; 1982; 1983; 1984; 1985; 1986.



of "normal" or "stable" individuals under stress. There are, in fact, well-known cases of mentally unstable or physically disabled policy-makers remaining in high office or of senior government officials unable to cope with prolonged stress. There are many leaders in the older age group; problems of health and physical disability may diminish their capacity to function effectively. Drugs that profoundly affect behavior and decision-making are widely used by those in the military and in government alike.

The cognitive effects of acute and chronic organic illness are well known and fully capable of affecting rational decision-making. It is important therefore to appreciate the demography of illness in the national leadership of the great powers. Among the major national figures with important physical or psychological health problems were Winston Churchill in his later years, Roosevelt, Anthony Eden at the time of the invasion of Egypt, Hitler, Stalin, Brezhnev, Andropov, Chernenko, and James Forrestal. All of them were in power at the beginning of or during the nuclear era.

There have been 16 U.S. presidents and 7 Soviet secretaries general in the twentieth century for a total of 23 leaders. Twelve had heart conditions in office (eight Americans and four Soviets). Eight were violently attacked (seven Americans and one Soviet); seven had major surgery (five Americans and two Soviets); six had cerebral hemorrhages (three Americans and two Soviets); and seven died of illness in office (two Americans and five Soviets). In addition, two Americans were assassinated. Twenty percent of all U.S. leaders and 70 percent of Soviet leaders have died in office.

Cerebral arteriosclerosis is one of the most important factors. Its manifestations may include diminished intellectual capacity, impairment of judgment, decreased ability to concentrate, and altered memory and emotional stability. Aging may also be associated with over-confidence and lessened flexibility. Acute coronary heart disease, a second common illness, disrupts normal psychological functioning and produces sustained emotional distress in a significant number of patients. Following Eisenhower's heart attack, he acknowledged that in the first week he could not have handled "the concentration, the weighing of the pros and cons, and the final determination" of a crisis.

From 1812 to the present there



have been 18 times (for a total of almost 40 years) when the U.S. has been without a vice president. Even with a vice president in place, succession to the presidency entails a new and unaccustomed role in which stability will be of great importance. An important consideration is the capacity of the next in command.

Lyndon Johnson had a near fatal heart attack in 1955. Had he suffered a second attack and died in office between November 22, 1963 and January 20, 1965, the speaker of the house, John W. McCormack—already well into his seventies—would have been president. Carl Hayden, in his eighties, was next in line as the president *pro tempore* of the Senate.

Although the succession in the U.S. is generally spelled out, it has been changeable. In the Soviet Union, there is no automatic line of succession. The politburo elects a new general secretary, sometimes several days after the death of the previous leader. The succession is characterized by a potentially unstable interregnum during which the new leader consolidates power.

The 25th Amendment to the Constitution is the only mechanism for removing a disabled U.S. president. Either the president or the vice president with a majority of the Cabinet must declare in writing to Congress that the president is "unable to discharge the powers and duties of his office." Nowhere does the amendment

state that medical or psychiatric counsel must be sought.

The White House physician who is responsible for the day-to-day health of the president has no direct role in the process, and his loyalty is usually to his patient, the president. In fact, White House physicians who treated Woodrow Wilson and Franklin Roosevelt played crucial roles in concealing the incapacitating illnesses that these presidents developed while in office. Kennedy's physicians obscured the full extent of his medical problems, which included steroid therapy for Addison's disease. During Nixon's last days in office he began to show signs of profound anxiety and made reference to the use of nuclear weapons. Neither his personal physician nor his family and friends initiated psychiatric consultation and treatment. No consideration of the risk of inadvertent nuclear war can avoid the conclusion that incapacity in national leadership during crisis represents an important potential danger in the decision-making process.

How important are tension, drug and alcohol abuse, physical illness, psychosis, irrationality and boredom in those responsible for our nuclear weapons? Can such sources of human instability and incapacity provoke a major nuclear mishap?

Human error is far less critical in times of tranquility than in periods of intense crisis. Given time, even the accidental launching of a nuclear weapon at the city of an adversary can be analyzed and explained. But when tensions are high and time for decision-making short, accidents, false warnings, paranoias, misunderstanding and miscalculation may assume different significance, and may lead to disaster. □

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# Universal Accountability

## *Physician Activists for Human Rights*

by Debra J. Trione

**O**n January 26, 1987, Jane Schaller '60, pediatrician-in-chief at the Floating Hospital of the New England Medical Center, was waiting in the uncomfortably hot and crowded corridor outside a chamber of the Chilean Supreme Court. Crowding in around her were five or six eager and excited Chilean journalists, all hoping for a word from the important American doctor.

Schaller is president of a new organization, Physicians for Human Rights (PHR), which is dedicated to active human rights advocacy on medically-related issues. It is the medical focus of PHR that sets it apart from other larger and better-established organizations like Amnesty International and Americas Watch.

The PHR founding committee, which gathered in Schaller's home in the fall of 1986, included a number of Harvard-affiliated physicians, all with personal histories of active human rights advocacy around the world. Schaller's own foray into the field had occurred by way of an eye-opening and "horrifying" health mission to South Africa in 1985. In its initial few months, PHR had sent repeated missions to Chile.

Schaller was in Chile this time because three doctors and one lawyer had been arrested by military police and imprisoned for up to eight months. The doctors had been charged with "terrorist" complicity—treating a bullet-wound victim, whom the government had later branded as a terrorist. Today the prisoners would

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finally appear in court to determine whether, at some later date, they should be tried as terrorists too.

Schaller knew that beneath these official allegations the government suspected the physician/prisoners of what it considered an even graver offense. In the summer prior to this trial, President Pinochet had publicly expressed his intolerance of human rights organizations. All of these prisoners had been active members of such organizations; one was the chief physician for the Vicaria, the human rights arm of the Chilean Catholic Church.

In the corridor outside the legal chambers, Schaller responded to the local journalists with an eagerness of her own. She explained that PHR, the Vicaria, and the Chilean Medical Association, which had requested that she come, all believed the defendant doctors had been right to treat the bullet-wound victim. The doctors had only been complying with their professional code of ethics and with the

international codes of medical neutrality (aiding injured parties regardless of their ideology) that had been endorsed universally just after World War II.

Schaller noted to the journalists that the origin of these ethical codes extended all the way back to Hippocrates and, warning to her subject, she warned against Nazi-like horrors if they were abandoned. At this the reporters stopped writing. "We can't publish that," one explained. "The papers are controlled."

Just as the journalist spoke the massive doors of the courtroom clanged open; the trial was ready to begin. Vicaria-sponsored lawyers testified first, though Schaller reports, "There was little sense of hope in the stifling air of the chambers."

Then came the eloquent and animated government prosecutors, who waved a signed "confession" they had almost certainly extracted under torture. The tale of intrigue these lawyers wove linked both the defendants and the Vicaria to terrorism. It easily persuaded the five justices and one military general hearing the case that the defendants were not only guilty of terrorist complicity, but that they should be tried as terrorists themselves.

It was a setback for Schaller and PHR, but not a total loss. In an article printed in *The Washington Post* two months later, Schaller wrote: "the Chilean government is using the device of antiterrorism to terrorize its citizens." And though it didn't make headlines, even the Chilean papers noted: "Dr. Jane Schaller, the president of Physicians for Human Rights





Jane Schaller and the secretary of Chilean Medical Association in front of Santiago Penitentiary.

from Boston, United States, was at the trial."

"Just in itself that says something," she insists. "It says that someone from the outside is watching; someone took the trouble to come and is speaking out."

Philip Alston, a specialist in international law and a member of the PHR founding committee, notes that the Universal Declaration of Human Rights, adopted by the United Nations in 1948, and the Geneva Conventions of 1949 were a first major step toward universal accountability on human rights. Though the codes set down in these documents may be impossible to enforce in any comprehensive way, says Alston, it is possible to apply pressure on derelict states.

Official UN condemnation, the suspension of aid or commerce, and the public exposure of violations are three means to implement such laws. In the past year and a half since PHR was founded, Jane Schaller alone has written editorials and/or articles about conditions in South Africa and Chile for *The Boston Globe*, *The Washington Post*, *International Herald Tribune*, *American Medical News* and *American Academy of Pediatric News*. Personal protest letters addressed to both U.S. Congressmen and officials of offending states have been another effective point of pressure.

After seven years in Soviet labor camps and prisons, dissident psychiatrist Anatoly Koryagin was released

and allowed to emigrate last year largely in response to protest letters from human rights activists around the world. Koryagin's crime had been to criticize the Soviet state for committing political prisoners to psychiatric hospitals.

In September PHR co-sponsored a lecture at HMS by Koryagin, in which he told of receiving severe beatings and inadequate nourishment during periods of solitary confinement. He also described how physicians employed by the Soviet Ministry of the Interior or KGB had surreptitiously slipped neuroleptic drugs into his food to weaken his will during periods of interrogation.

In the question period following that lecture, a woman raised her hand to announce that she herself had tenaciously drafted countless letters on Koryagin's behalf. Satisfaction and gratitude were palpable in the crowded amphitheatre when after a silence the speaker smiled and, through a translator, replied, "Thank you very much."

When the Universal Declaration and Geneva Conventions were first drafted, they attained virtually universal support. But hypocrisy apparently abounds. Although statistics on the number of tortured and detained in the world are hard to come by, Amnesty International estimates that a full half of all countries currently hold "prisoners of conscience"—individuals punished for their beliefs, who have not taken part in or advocated violence. No country, according to Amnesty, is free of human rights abuse, including our own. And although no country officially condones it, at least a third of all governments systematically and routinely employ torture.

Why does this happen? "Without a doubt, some of it is purely sadistic and vindictive," says Jonathan Fine, executive director of PHR, who has spoken extensively with torture victims throughout the world. "But another principle motive is to terrorize, to make the tortured and detained into object lessons for the rest of society. And beyond that, perhaps to disable the individual victims, to reduce their self-esteem so that they will not be able to function."

Fine tells, for example, of a Chilean teenager who in 1984 had gone to an anti-government, but non-violent, demonstration in his town. The boy was caught and taken by police to a "precinct house" that was not usually

associated with torture. There his head was dunked several times into a bucket of excrement and urine. He was then left in jail overnight and released the next day.

The psychological damage of torture can be even more severe than the physical pain, reports Fine. When torture victims return to the outside world, they "often find they cannot hold a job. They frequently have nightmares, become depressed and may withdraw from society altogether."

Jonathan Fine, an internist trained at the Peter Bent Brigham Hospital, was working at the North End Community Health Center in June of 1981 when Harvard history professor John Womack launched him unexpectedly into his first human rights expedition abroad. Womack called to ask Fine if he knew of a Spanish-speaking physician who could go on an emergency mission to Chile. A week later, Fine himself was in Santiago inquiring after three physicians who had disappeared, were feared tortured and perhaps murdered by Chilean police. After several frustrating days questioning government officials who were "not very forthcoming," he was finally allowed to see the three doctors in an isolated prison courtyard.

What he saw in that courtyard, and what he heard later from other torture victims in both Chile and Guatemala, moved Fine so deeply that in 1983 he decided to leave internal medicine and devote himself full time to human rights. That year he founded the American Committee for Human Rights (ACHR), an organization of high-ranking professionals dedicated to active human rights advocacy around the world.

During the next three years, some members of ACHR began to sense the need for a human rights group concerned specifically with medical or health care issues. They saw that unscrupulous doctors occasionally assisted in state-sponsored torture, and that conversely, doctors were very commonly victims of government intimidation and violence. The ACHR recognized that repressive regimes often linked medical professionals concerned for the community's well-being with reformist or political opposition groups. Doctors are in a unique position to document government-sponsored brutality, says Fine, and may therefore become targets of such brutality themselves.

It seemed obvious to Fine and to the other members of ACHR that doctors could best advise on the health



consequences of wide-scale human rights violations, like the indiscriminate use of poisonous gases to dissipate riots in South Korea. And since American doctors are generally held in high esteem, they might be particularly effective in influencing world opinion on such matters.

By June 1986 ACHR seemed to be, as Fine puts it, "standing on the frontier of a huge, unexplored continent of physician involvement in human rights." They voted to regroup, and a new organization—Physicians for Human Rights—was born.

The founding committee of PHR soon established a modest office in Somerville and hired Susannah Sirkin, a four-year veteran of Amnesty International. They formed a new executive committee, which now meets once a month to discuss the business of focus and funding.

The PHR founding committee that gathered in Jane Schaller's home in the fall of '86 was a confluence of physician/activists with wide-ranging human rights concerns. In addition to Schaller and Fine, the committee included Bob Lawrence '64, chief of medicine at Cambridge hospital; Carola Eisenberg, dean for student affairs at Harvard Medical School; and John Constable, a plastic surgeon at Massachusetts General Hospital and a senior consultant at the Shriners Burn Institute in Boston.

Lawrence, vice-president of PHR, had become aware of human rights early, encouraged by his father, a minister, and by a rabbi who had escaped Nazi Germany and stayed with his family just after WWII. "I remember wondering why a man as nice as this man, who was such a wonderful chess teacher and such a warm, loving individual, was forced to leave his native country and escape with his life."

During his undergraduate years, Lawrence aspired to be a medical missionary in Africa. He remembers writing his honors thesis on apartheid. "As I dug more and more into it, I remember feeling more and more outraged, but also feeling that I couldn't do anything about it."

During the next 25 years, Lawrence traveled to Latin America five times. He went first as an HMS student engaged in a six-week project to study health care in Brazil. Then in 1967 he returned for two years to do malarial studies in El Salvador. During the 1970s he twice did consulting work in

El Salvador for the Agency for International Development. And in 1983 he returned to that country on a human rights mission to investigate the disappearance of 16 health workers. Of the trip that began in 1967, Lawrence says:

"For two years I did malarial epidemiology, traveling mostly by myself on the Pacific coastal plain, seeing firsthand the amazing exploitation by wealthy land owners and the high rates of disease. More and more I began to feel that trying to persuade these people to take their anti-malarial medication was missing the mark, that what they really needed were decent wages, decent housing, and adequate food and education. I wasn't at all surprised when civil war broke out."

As an ACHR member in 1983, Lawrence also accompanied Fine on a mission to the Philippines "where three priests and six health workers had been falsely charged with the

murder of a mayor as a way to curtail their activities." They also hoped to investigate the recent murder of two Philippine physicians. Lawrence had first-hand evidence that the doctors' real but unstated offense had been to move in and out of areas contested by the New People's Army.

"Physicians are bound by their professional ethics to treat all admissions," says Lawrence, "but repressive regimes often regard this as aiding and abetting the enemy. The physician is guilty by association."

In January 1983, when Lawrence embarked on his third mission to El Salvador, Carola Eisenberg was already there. She had gone as part of an American Public Health Association delegation to investigate reports of systematic violence targeted at health workers and their patients by the Salvadoran state. A native of Argentina, Eisenberg had become increasingly disturbed by Latin Amer-



*Jonathan Fine with recently-released Chilean psychiatrist Fanny Pollarolo.*



ican unrest and by "the atrocities that had been visited upon the children of friends of mine—children who had been murdered or had been 'disappeared'."

Before the tide of executions and disappearances that began in El Salvador in 1979, that country had had only 2.9 physicians for every 10,000 people. When Eisenberg's delegation arrived, they estimated that 30 to 40 percent of those physicians had been murdered or were living in exile. At a time when state-sponsored violence was the leading cause of death among citizens, medical workers were particularly singled out for abuse.

Eisenberg's delegation interviewed a U.S.-trained Salvadoran obstetrician/gynecologist, then living in exile in Mexico City because his name had been put on a death list. He had been performing a routine test for cervical cancer when the government cited him for "creating a social problem by finding all this cancer."

What Eisenberg saw and heard in El Salvador went beyond her normal understanding of human rights violations. "I was so overwhelmed by the agony of a country under a dictatorship of that sort," she says. "I saw scenes that would make Dante's *Inferno* seem tame—starving children, children dying for lack of immunization, mothers pathetically begging for food and medicine for their infants." Independent of Schaller, Fine and Lawrence, Eisenberg recognized the need for a health care-related organization to advocate human rights. When she met Fine in 1986, he suggested

she join him in the formation of PHR.

John Constable came to the founding committee of PHR with years of experience in "third-world medicine." His research on the medical effects of Agent Orange and napalm had taken him to Vietnam on nine separate occasions, and he had made medical missions to India, Columbia, Turkey and Egypt as well.

"I feel strongly that those of us who enjoy the advantages of practicing and teaching in relatively high-powered places have the obligation, as well as the pleasure, to carry our knowledge as widely as possible," he says. "International linkages between people that understand each other can have direct benefits and may also be of great political importance. An American lawyer can't visit Vietnam as a lawyer, because the court system and laws are so different, but medicine is the same everywhere. I can go to Vietnam and go right ahead operating and giving a lecture, just as I would here."

In July 1986, Constable embarked on what was to be the first PHR-sponsored expedition abroad. Chilean military police had arbitrarily apprehended two teenagers on a country road. In what Constable calls "a particularly revolting episode," the police beat the two with rifle butts, sprayed them with gasoline and set them on fire.

Unbeknownst to the aggressors, though, one of the victims was the son of a well-known Chilean exile living in Washington, DC. Word of the attack reached PHR the next day.

"If anyone was to go and do any good it had to be in the next day or two," recalls Constable. "It seemed to me that it was an important issue from both the human rights and the burn treatment point of view. To go purely as a human rights activist and not get involved in therapeutic treatment would have been impractical and really wrong, but to go purely as a burn expert and in no way get involved in why they were burned, would have been equally difficult. The one followed the other."

Constable reached Santiago the very next day, hoping to assess and advise on the medical care these victims would receive. When he got there, however, he found that the boy had already died and that the 18-year-old girl was "extremely ill with a very extensive burn, shock, and life-threatening, if not fatal, complications." He quickly determined that the best course of action would be to move the girl to a different hospital within Santiago, instead of trying to transport her back to the U.S. for care.

He was able to motivate the Chilean authorities, who were now quite embarrassed and cooperative, to move the girl to a specialized burn-treatment center in Santiago. Then, under the watchful eye of Chilean physicians whom Constable consulted with every few days by phone, her condition started to improve. "I still didn't think she would survive," he says. "Every time I would call, there would be some other disaster in the natural progression of this very severe burn."

But Carmen Quintana did survive. More recently she has traveled with her family to Montreal for reconstructive surgery.

"It seems unfair, doesn't it?" says Constable. "The number of individuals we help isn't going to be great. But if we raise international consciousness to what is going on, then by a kind of ripple effect one can do a great deal more. At least that's the hope."

With only limited resources, PHR has had to define a few geographical areas of particular long-term concern: Central America, Chile, South Africa, South Korea, the Soviet Union and Turkey. But within the past year, the organization has also sent emergency missions to Malaysia and Czechoslovakia and has distributed alerts to its members on medically-related abuses in Ethiopia, Kenya, Malaysia, Somalia, Poland, Rumania, Tunisia and Yemen.



Bob Lawrence with members of local human rights group, Task Force Detainees, in the Philippines, 1983.





*John Constable in El Salvador with car marked to discourage terrorist attack.*

"It would be quite possible to draw up an entirely different list of countries," says Fine. "But we try to maintain a geo-political balance. We want to be willing to take up cases regardless of the ideology or the alliances of the offending country."

Many of the countries PHR has focused on so far have had governments that tend toward the right. A smaller number, like Ethiopia and the USSR, are Marxist. "It isn't easy to do missions to Marxist countries," explains Fine. "If it turns out we do more business in countries with right-of-center governments, it may have something to do with our greater access to those countries."

PHR has found that countries committing human rights offenses may respond to pressure from U.S. organizations for a variety of reasons. Those receiving foreign aid may fear that investigators will sway U.S. public or congressional opinion significantly against them. In a number of cases this has already happened. When Fine returned from Chile in 1981, for instance, his testimony before the U.S. Congress influenced congressional leaders to write urgent letters of protest to the Chilean foreign minister. Five weeks later the detained and tortured doctors he had seen in that country were freed.

Other governments might be motivated to respond through a more generalized concern for world opinion. "A lot of these dictatorial governments behave so badly to their own people and yet seem so sensitive to the opin-

ion of the world," says Lawrence. "Pinochet doesn't like the fact that Chile is considered a pariah on the world scene. He's constantly denying what's going on and trying to gloss it over, paint it in a better light."

The Soviet Union is a case in point. "In the current political climate," says Fine, "Gorbachev is eager to portray his country as one with integrity, one that's for peace and decency. They want commercial ties with the West; they want technology from the West; and they want to wind down the arms race. All these things are interdependent. If they are properly criticized by us and the rest of the world for imprisonment, cruelty or the psychiatric hospitalization of political dissidents, they know that they're less likely to make progress on those other goals."

Amnesty International reports that many Soviet labor camp prisoners suffer "chronic hunger and malnutrition" under "starvation diets." As the severity of the camps increase, the caloric value of the diets decrease and the rigors of labor compound, apparently leaving many prisoners in a negative balance. PHR has recently requested permission to investigate labor camp conditions, and Fine believes it may well be granted.

It is hard to avoid the impression that the nuclear arms race adds a whole new dimension to U.S. concern for human rights in the Soviet Union. Both Constable and Fine have been active members of nuclear disarmament groups: Fine with Physicians for Social Responsibility and Con-

stable with International Physicians for the Prevention of Nuclear War, the group that won the Nobel Peace Prize in 1985.

"There is no question that nuclear weapons are a threat to human life, and therefore to human rights," says Fine. "But to some degree these agendas have to be kept apart. Over 20 million people have died from non-nuclear political violence since WWII, most of them non-combatants or military conscripts who had no choice—innocent people whose rights were violated in a number of ways."

Some human rights activists in this country are conspicuously perturbed by recent signs of a U.S./Soviet thaw. Some fear it may signal a slackening of standards on our part. Soviet dissidents like Yuri Orlov, Natan Scharansky and Anatoly Koryagin state strongly that because the Soviet state has so little integrity on human rights, we shouldn't trust them in arms negotiations either.

"These two problems are separate but related," says Lawrence. "The Universal Declaration of Human Rights and the Geneva protocols were all post-WWII. We may be surprised that so many of the basic human rights that now seem essential to civilization really only recently came into being. There were slaves in the U.S. just 100 years ago; and 40 years ago there were no women at HMS. There were segregated schools in Boston just 15 years ago. We're only now beginning to realize that our behavior as a species is self-destructive. The bomb makes it all the more urgent—there is a new awareness of one planet, one family, one fate."

Schaller says that her involvement in human rights work has made her particularly aware of this unity too. "People aren't much different anywhere, even if they're from enormously different places. You can go to one of the remote Bantustans of South Africa and find that mothers still love their children. There's a great universality in the way human beings behave that escapes us sometimes."

"The conditions and events I saw in South Africa were perfectly horrible. When I got back to Boston, people tended not to believe the things I told them. On the other hand, many people I met in South Africa—mothers, children, nurses and doctors—said, 'Don't forget about us; help us make a change here'." □

*Debra J. Trione is assistant editor of the Bulletin.*



# The Oath Betrayed

# The Physician Soldiers of Nazi Germany

by Eliezer Trepman

My interest in Holocaust history has a very personal basis. My father spent the war years under German terror. He escaped from the Warsaw Ghetto, survived brutal interrogation at Gestapo headquarters in Stanislawow, and endured seven concentration camps, including the infamous death camp Majdanek. My mother and her sister survived the terror, hunger and slave-labor of Stutthof, the concentration camp near Gdansk famous for having produced soap, among other products, from human raw materials. Both my parents lost almost their entire families, murdered in the name of Hitler's 'New Order'. They witnessed and suffered through the inhumanity, the indignities and the mass murder inflicted by the Germans on the Jews and many non-Jews of Europe.

As a medical doctor, I have been keenly intrigued by physician involvement in the Nazi program. The victims of these physicians suffer to the present day. I recall an incident during my fourth year of medical school when, as part of the psychiatry consult service, I was called to help manage a Jewish woman with severe angina pectoris. She had been an experimental subject of Nazi doctors during the war, and had suffered sterility and many years of post-war pain due to their deeds. When I met her, she was under the care of a well-known Jewish cardiologist, and the only hope for her cardiac condition was a promising new, but experimental, drug called

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nifedipine. Despite her trust in her physician, she absolutely refused the drug because of her mortal fear of being an experimental subject.

Many German physicians were active in the Nazi movement, and several of their ranks held influential positions. Ernst Rudin, a founder of the German Society for Racial Hygiene and prominent in the compulsory sterilization program, was a world-renowned psychiatrist. Gerhard Wagner, chief physician of the Reich, was active in formulating the sterilization program and is regarded by some as the godfather of the "euthanasia" program, which claimed thousands of lives. Joachim Mrugowsky, head of the SS Hygienic Institute, which regulated the distribution of poison Zyklon B cyanide pellets to the concentration camps for use in the mass murder of millions of people, was also a physician.

Furthermore, physicians held non-medical positions within the Nazi hierarchy. Irmfried Eberl, for instance, was a *kommandant* of the extermination camp Treblinka, where 800,000 Jews were murdered. In fact the medical profession had one of the highest proportions of Nazi Party membership—45 percent of German doctors were Nazis.

What did these doctors actually do? How did they feel when they participated, or after it was all over? How *could* they have been so horribly cruel to fellow human beings—men, women, and yes, children—on a daily basis? How did they maintain even a semblance of belief in the ethical framework of medicine? These, and other similar questions, have troubled me since I started medical school.

The involvement of the German medical profession in the formulation and execution of Nazi racial doctrine and genocide has been largely ignored in the historical annals of the Second World War. Nevertheless, I have found two sources particularly helpful in exploring these issues: "Medical Science Under Dictatorship," an article in the *New England Journal of Medicine* (1949) by Leo Alexander, a Boston psychiatrist who

*Opposite: Prisoners undressed in Block 11, Auschwitz, before execution in adjacent courtyard.*







was on duty with the Office of the Chief of Counsel for War Crimes in Nuremberg after the war; and a more recent, major study, *The Nazi Doctors* (1986) by Robert Jay Lifton, MD. These sources show that doctors were directly involved in all aspects of the Nazi killing programs, from the bureaucracy to the actual murder and handling of corpses.

I was especially stunned to learn of the particularly medical nature of the Nazi killing program, and that many physicians believed they were following a set of biomedical principles in performing their murderous acts.

Lifton notes, for instance, that National Socialist racial theory specifically emphasized pseudo-biological and medical ideas. Hitler himself had used medical imagery to develop his racist dogmas in *Mein Kampf*. He had characterized Germany as suffering from "illness," in "grave danger of *Volkstod*" (death of a nation), and the Jew as a "maggot in a rotting corpse," an agent of "racial pollution." Heinrich Himmler had said that "anti-Semitism is exactly the same as de-lousing."

Germany had had a long history of anti-Semitism dating back to the Middle Ages, when Jews had been accused of causing the Black Death. Martin Luther had denounced the Jews as "children of the Devil" and a "venomous" danger to the German-Christian community.

Precedents of pseudo-biological and pseudo-genetic dogma had been developed by the eugenics movement in England and the United States. However, in Nazi Germany anti-Semitism was combined with pseudo-biology into a new whole.

With the Jewish and other non-Aryan races being viewed by the Nazis as a "disease," killing became, as Lifton says, "a therapeutic imperative." Lifton refers to the Nazi state as a "biocracy," with the prerogative, according to Hitler, of "assembling and preserving the most valuable stocks of basic racial elements." Deputy Party Leader Rudolf Hess announced that "National Socialism is nothing but applied biology." The physician was chosen to be a leader in this biocracy—a "biological soldier," "cultivator of the genes" and "caretaker of the race."

The attainment of the national goal of "keeping our (Aryan) blood pure" went hand-in-hand with anti-Semitic dogma, and facilitated the general rejection of the Christian principle of *caritas* or charity. The individual be-

came insignificant in comparison to the state, or *Volk*.

The mass sterilization program was the earliest large-scale Nazi program that German physicians carried out *as a group*. On June 22, 1933, after less than five months in power, the Nazis introduced a law requiring compulsory sterilization for the "hereditarily sick," including people with mental deficiency, schizophrenia, manic depression, epilepsy, hereditary blindness and deafness, and congenital malformations. Physicians were required to report any cases in these legally defined categories to health officers.



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"Hereditary Health Courts," consisting of two physicians and one district judge, decided on individual cases. The surgical procedures were performed by physicians. An estimated 200,000 to 350,000 people were sterilized in Germany under this program, including some with relatively mild conditions such as clubfoot and cleft palate, and individuals of undesirable political or moral constitution.

The "euthanasia" program also had as its basis ideas and theories developed prior to the Nazis. In 1895 Adolf Jost had argued in *Das Recht auf den Tod* (The Right to Death) that control over death must belong to the state, not the individual involved. In 1920 jurist Karl Binding and psychiatry professor Alfred Hoche had argued in *Die Freigabe der Vernichtung lebensunwerten Leben* ("The Permission to Destroy Life Unworthy of Life") that killing, in cases of "life unworthy of life," was "compassionate," "consistent with medical ethics" and "an allowable, useful act."

The Nazi "euthanasia" program began with the killing of children. Midwives and physicians were required to report any anomaly or illness to a central agency, and then three

medical experts decided, solely on the basis of the report, whether the child was to be murdered. Without an examination of the child, the experts simply noted a plus or minus sign on the report if they decided for or against the killing. The child was then transferred to an institution and killed within a few weeks by physicians using luminal tablets, injections (morphine and scopolamine, curare or cyanide), or starvation.

In October 1939, the euthanasia program was extended to adults, with the code name T4. It was T4 policy that the killing actually be done by a physician. In fact, the motto of Viktor Brack, head physician of the chancellor's Euthanasia Department II, was that "the syringe belongs in the hand of a physician."

Professor Werner Heyde, a prominent psychiatrist involved in T4, advised that carbon monoxide gas be used to kill the victims. The techniques developed in early experiments with carbon monoxide gas chambers in Brandenburg were later used *en masse* in the death camps. After the "patients" were killed, the physicians were responsible for preparing false death certificates, choosing a false cause of death that had medical credibility. Letters were sent to the family, along with an urn of ashes, which may or may not have been the cremated remains of the actual family member.

Eventually, T4 was officially disbanded, after considerable resistance within Germany. However, the actual killing continued in a phenomenon termed "wild euthanasia." Physicians acted on their personal authority even without government controls. There were *Hungerhauser* (starvation houses) where patients were provided with a "special diet" and eventually starved to death. Physicians held "conferences," in which they discussed "therapy," which "medication" to order and other "clinical" decisions. This organization made the whole process analogous to a therapeutic undertaking in any large hospital.

The next step in the evolution of medicalized killing was Operation 14f13, whereby "excess" prisoners in the concentration camps were selected on the basis of illness, physical incapacity or race, and killed. The official term for this procedure was *Sonderbehandlung* ("special treatment"). Examples of "diagnoses," which were the death sentences of these prisoners, included "Inflammatory Jew hostile to Germans; in camp lazy and in-



solent" or "Fanatical German-hater and asocial psychopath." Lifton points out that 14f13, which began in early 1941, was significant because it was the means by which killing in the T4 program was brought to the concentration camps.

Auschwitz, the largest extermination camp run by the Germans, claimed the lives of 4,000,000 people, 2,500,000 of them Jews. Many witnesses have described physician involvement in the killing process whereby people in newly arrived transports were selected either to live, as slave laborers or experimental subjects, or to die immediately in the gas chambers. The SS doctors themselves made these selections, ordered the quantity of poison gas to be used, observed the deaths, signed certificates confirming the completion of the killing, and then supervised the extraction of gold teeth from the victims. One survivor concluded that "the killing program was led by doctors—from the beginning to the end."

I found detailed overviews of human experimentation performed by German doctors on camp inmates in

the works of Alexander and Lifton, as well as in Robert E. Conot's *Justice at Nuremberg* (1983). Some physicians performed barbaric experiments, apparently to disprove any suspicion of disloyalty, whereas others were motivated by scientific interest.

Horst Schumann irradiated men and women as a method of sterilization, and then removed the organs for pathological analysis by means of fast, crude surgery which led to infections and deaths. A group of women were gassed to death so their corpses could be used by August Hirt, a professor of anatomy, in "anthropological research." Josef Mengele selected twins and people with genetic diseases for his research, and often killed his subjects to confirm diagnoses. Drug trials were performed on inmates for pharmaceutical companies such as Bayer. Cold immersion, artificially induced infections, artificially inflicted burns, poison ingestion and sea water ingestion were all studied on humans by the German physicians at Auschwitz and elsewhere in the Third Reich. One prisoner doctor noted that "man was the cheapest

experimental animal. . . . Cheaper than a rat."

The behavior and actions of prisoner-physicians in the concentration camps is another important aspect of medical and Holocaust history. Some prisoner-physicians apparently collaborated with the German SS doctors in physically abusing other inmates, in selecting who would die, and in performing experimental operations. This participation was due, in part, to the anti-Semitism of these physician-collaborators. Furthermore, this behavior may have ensured their own usefulness to the Germans, and therefore, increased their own chances of survival.

In contrast, other prisoner-physicians provided real medical assistance to fellow inmates. One example is Albert Haas, who describes his experiences in an extraordinary book, *The Doctor and the Damned* (1984). Haas, a Jewish physician disguised as an Aryan, was able to use his medical influence to secretly "organize" medication and instruments, both in extremely short supply.

Sometimes Haas used his medical



Block 10, Auschwitz, where human experimentation was performed.



expertise as a weapon against his tormentors. He describes, for example, how he amputated the right arm of a *kapo*, a foreman who had sadistically and habitually tortured and murdered inmates, when the *kapo* had presented to him for treatment of a minor finger infection. Soon thereafter, the *kapo* hung himself. Haas explains that "life in the concentration camps had necessitated a cruel reinterpretation of the values that had inspired me to become a physician. In order to save lives, I now had to take them. Survival... was extraordinarily precarious... We were forced to take advantage of every edge."

I have found several writers who have probed beyond the historical fact of physician involvement in the Nazi German atrocities in an attempt to analyze the ethical and psychological constitution which facilitated this participation.

The impersonal nature of a mass killing cannot fully explain how these physicians could participate in murder, because German doctors also killed individual prisoners by hand with phenol injections. Initially, this was performed intravenously, but subsequently, direct intracardiac injection was used for greater killing efficiency.

It is impossible to understand how a physician could look a young mother and toddler in the eyes, and then send them to their death. Yet "ramp duty," as this selection was called, was performed *exclusively* by doctors, a policy defended by Eduard Wirths, chief SS physician at Auschwitz. One SS doctor referred to such selection as "normal duty," "a regular job." He said that doctors would discuss techniques—how many people to gas at once or how to burn such enormous piles of corpses—as an intellectual pursuit. In discussions with other doctors, he noted that the focus was pragmatic—"it was purely a technical matter... 'Ethical' plays absolutely no (part)—the word does not exist."

Perhaps even worse was that some performed their duties *in the name of* ethical principles. When a prisoner-doctor asked SS physician Fritz Klein how he could participate in these horrors, considering the Hippocratic oath, Klein's response was, "My Hippocratic oath tells me to cut a gangrenous appendix out of the human body. The Jews are the gangrenous appendix of mankind. That's why I cut them out."

Alexander points out that the Nazi

German medical crimes had started with "a subtle shift in emphasis in the basic attitude of the physicians." The idea of "life unworthy of life" initially referred to the severely and chronically ill, but later came to include the socially unproductive, ideologically adverse and racially hated.

I found Lifton's analysis of the psychological mechanisms used by the German physicians during socialization to Auschwitz particularly thorough and instructive. A "shift from revulsion to acceptance"—which I believe occurs in first-year medical students encountering their cadavers in the anatomy laboratory—happened in most SS doctors. One SS physician commented on selection, "In the beginning it was almost impossible. Afterward it became almost routine."



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In explaining doctor involvement, Lifton cites pressure, mentorship and psychological distance, as well as a phenomenon called doubling. Lifton uses doubling, defined as "the division of the self into two functioning wholes, so that a part-self acts as an entire self," to explain apparent discrepancies in character. For example, as chief SS physician at Auschwitz, Wirths was responsible for selection policy (whether or at what point mothers and children should be separated from one another). He also performed selections himself, and carried out lethal and mutilating experiments on humans. However despite this, he had close family ties, and wrote passionate love letters to his wife. This seems impossible, especially since he dedicated his Auschwitz work to his wife, "for you, my life, my heart, for you and the children."

It seems to me that all the mechanisms and psychological factors Lifton cites function to some extent throughout medical training. The physician has already been conditioned during

training to respond to psychological influences like pressure and mentorship with characteristic psychological distance and obedience. I fear that this conditioning might make the physician particularly susceptible to compliance in different situations with similar psychological factors.

It is disturbing that many of the perpetrators of the Nazi German medical crimes were professors, doctors of bland backgrounds or physicians such as Wirths, who was characterized by prisoners as "competent," "conscientious," "intellectual," "broadly cultivated" and "gentleman(ly)." The message is that anyone can be socialized into becoming a mass murderer.

Perhaps the behavior of Nazi doctors cannot be understood. Nevertheless, I believe the historical and psychological study of that behavior is important because it may lead to a heightened awareness of the general susceptibility of unremarkable men to becoming killers, and of the possibility and likelihood of such atrocities happening again.

The German doctors are not unique in their involvement in evil. Japanese physicians in WWII also performed medical experiments on human subjects. Today in the Soviet Union political dissenters are diagnosed by doctors as mentally ill and imprisoned in psychiatric hospitals. Physicians in Chile have served as torturers, and South African doctors have falsified medical reports of blacks who have been tortured or killed in prison. Genocide itself has not ended with the Germans, and has been evidenced more recently in Uganda and Cambodia.

Study of these things is difficult because the subject is so horrible, and it elicits such intense anger, revulsion and despair. Nevertheless, I believe that it should be required for all students of medicine and medical ethics. In a recent informal survey at Harvard Medical School, only 4 in a class of approximately 150 students knew what Zyklon B was or for what it had been used. Physicians must confront this history and sensitize themselves to guard against the possibility of recurrence. □

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*In Our Own Backyard*

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# Tracking Hunger in America

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by J. Larry Brown



Senator George Murphy of California could scarcely believe his eyes. Standing before him were three American children who had eaten nothing for several days. For the mother and father the time without food had been even longer, as they had declined to eat any of the dwindling supply in order to conserve what was left for their offspring.

It was 1967, and the nation's growing willingness to acknowledge problems and to try to fix them had manifested itself in Congress. For two days a bipartisan team of United States senators and doctors organized by Robert F. Kennedy had toured the green, rolling mountains of Appalachia looking into reports of religious leaders and local health officials that American people were going without food.

A conservative Republican from California, Senator Murphy had been skeptical of the reports. But seeing the situation first-hand had made him a believer, a visibly shaken one.

The visit to Appalachia was augmented by similar investigations in the ghettos of such northern cities as Chicago and Boston, the Indian reservations of the Southwest, and the camps of migrant farm workers in California. Their first-hand look at poverty and hunger in the U.S. was to have a sobering effect on the political leaders. They later stood by the dramatic and harsh words of a report to Congress written by doctors who had accompanied them in their eye-opening travels:

*"If you will go look you will find America a startling place. To make four-fifths of our people more well-off than any other on the face of the earth, we had degraded one-fifth mercilessly. . . . We do not want to quibble over words, but 'malnutrition' is not quite what we found. They are suffering from hunger and disease and directly or indirectly they are dying from them—which is exactly what 'starvation' means."*

Over the next several years America addressed the problem of domestic hunger. Responding to a ground swell of public opinion, Democratic and Republican leaders forged an array of programs to remedy this wholly preventable problem. The food stamp program, which issues vouchers to

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the poor for the purchase of groceries, was expanded from a pilot basis to operate in every state. School lunch and breakfast programs were offered so poor children could have the nutritional base for learning. Elderly feeding programs were started to reach lonely older Americans in their communities and homes. And a special supplemental food program for low-income pregnant women, infants and children (WIC), was begun to provide enriched nutrition when it makes such a critical difference.

In 1977 doctors returned to the regions of the nation where they had discovered severe undernourishment a decade before. What they found gave them great pride: America's nutrition programs were succeeding. While they still saw extreme poverty, the pantries of the poor were no longer bare. The impoverished had food to eat, local teachers no longer reported children unable to learn due to hunger, and physicians and nurses in community clinics said that malnutrition was not a severe problem among their poor clientele.

To be certain, things were not perfect, but they were noticeably improved. It was a success, however, which would be short-lived.

On a bitterly cold winter morning in 1983, a group of doctors piled into my Volkswagen bus as we made our way to Connecticut and then Rhode Island. Starting 18-hour days at 5:30 AM, we would divide into small teams to interview hungry people and those who try to serve

them. Assisted by local staff in each state, we would talk with medical colleagues about trends seen in cities and small villages, interview ministers and school teachers, and grant quick interviews with curious press who had learned of our arrival. We would encounter poverty, hunger and ill-health so startling that it would bring tears to the eyes of some.

Two days later, our conversation on the return trip home was somber, sometimes angry. We were startled by our discovery that hunger seemed to be widespread in the region we had visited, a phenomenon easy to find.

None of us knew it at the time, but this was to be the beginning of a long odyssey, perhaps unprecedented among health and medical professionals. Five years later many of us would still be working together, based at the Harvard School of Public Health, and organized as the Physician Task Force on Hunger in America. Our journeys would take us to more than half the states of the nation, sometimes requiring as many as 12 or 14 of us to be away for a week at a time. We would enter the lives of individuals and families who live in another America, and discover the private pains of their torturous existence. None of us would ever be the same.

Hunger in America crept back relatively unnoticed until late 1982, when a bipartisan group of mayors from around the nation told Congress that growing numbers of their constituents were going hungry. Soup kitchens and bread lines were springing up throughout the nation, and the mayors described the deprivation it reflected as an "emergency situation."

About the same time a study commissioned by the U.S. Department of Agriculture concluded that hunger in America "is growing at a frenetic pace." The next year, the General Accounting Office found that emergency food needs in regions of the nation were "greater than ever," a finding subsequently matched in surveys and studies conducted by universities, national religious organizations and nonpartisan research institutes.

Over the course of several years, some 76 studies were reported on the subject of hunger in the world's wealthiest democracy. Not all were based on methodologies beyond reproach, but the sheer number of studies, the diversity of the organizations conducting them, and the uniformity of

*On the previous page: a Texas family by a hurricane lamp, their only light, 1986. Photo by Steve Hanes, Journal-Bulletin*



their findings provided a compelling body of evidence.

After issuing a report of our findings on hunger and ill-health in the six states of New England in 1984, a group of us based at Harvard School of Public Health were approached by the president of the national Field Foundation. He was concerned that hunger might be spreading across the nation once again. The same foundation that had commissioned the work of the doctors back in 1967. Field awarded a grant to Harvard to organize a national panel of doctors to look into the situation and to make a report to the public and Congress. I was asked by the foundation president to chair this endeavor, and I immediately consulted with my senior Harvard colleagues Julius Richmond and Rashi Fein about the overall undertaking.

Our theory was that if New England had a serious hunger problem, particularly in light of its relatively good economic circumstances, the problem may well be worse in less affluent regions of the country. Throughout 1984 and early 1985, we employed a fact-finding model that combined

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more traditional academic research with field investigations in 25 states in various regions of the nation.

The small group of doctors who once crowded into the Volkswagen bus had now grown to include the former surgeon general of the United

States, the president of the American Public Health Association, deans of medical schools and schools of public health, psychiatrists and clinicians, some 22 people from around the nation.

We went first to the deep South, areas of rural Mississippi where our predecessors had been nearly two decades before, and on to the steel towns and rural counties of Alabama. We fanned out for five days across the hills of Appalachian Tennessee and throughout North Carolina villages and migrant camps, cities and towns, working in teams of three and four.

We went on to view the "miracle" of Texas, a state experiencing economic boom at the time but where 80,000 residents were going hungry. Several physicians said that South Texas reminded them of conditions in the Third World. There and in New Mexico doctors told us of seeing Kwashiorkor and marasmas, and expressed their concerns that these few instances of advanced malnutrition represented a much larger pool of people experiencing chronic under-nutrition.



A gas station converted to feed the hungry in Jackson, Mississippi, 1985.



In the breadbasket of America we found hunger literally within view of the large silos that store the nation's supply of grain. In Iowa, Missouri and Illinois we discovered that many once-productive farm families frequently ran out of food. Losing their farms, they were not even permitted to till the land they once worked, or to slaughter the pigs they raised because now it all belonged to the banks. Prominent physicians, people like Irwin Rosenberg at the University of Chicago, Howard Levy at Mount Sinai Hospital, and Catherine Christoffel at Children's Memorial Hospital, told of growing deprivation among their patients, including growth failure in children and malnutrition in adults associated with lack of food.

The nation seemed shocked when we released our findings in a crowded press room at the American Public Health Association in Washington the following year. We calculated that about 20 million Americans experience hunger each month, defining hunger as chronically inadequate nutrient intake based on recommended dietary allowances established by the National Academy of Sciences. We concluded that hunger was a widespread and growing problem in the nation—characteristics of an epidemic. Whereas our calculation was an estimate based on a fairly elaborate methodology, national pollster Louis Harris reported that he had found the number of hungry Americans to be slightly higher than our calculation.

Over the next several days we watched in surprise as the results of our work were reported on every network television news program and in virtually every daily newspaper in the country. Our surprise was pleasant, based on the belief that if the nation knew the extent of hunger and the toll it exacts on the health of our citizens, appropriate steps would be taken to end it.

Yet we were shocked when White House spokesmen belittled our findings and challenged our purposes. We were charged with having a sinister desire to discredit the Reagan Administration, even extending to the allegation that we were trying to influence the outcome of Senate elections in the coming year. Some critics in the White House said that more was being done to feed the hungry than ever before, and that our numbers were without merit.

The wind was quickly taken out of this offensive. In his CBS commentary, Dan Rather noted the White

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House quibbling and put it this way: "Let us say for the moment that Harvard is wrong, that their estimate is off by 19 million. Would we be proud of a nation with a million hungry citizens?"

Hunger does not just happen in a wealthy nation. Like common diseases, it has a cause or etiology. Yet it is one thing to ask appropriate government agencies to respond to something like legionnaire's disease, whose etiology has no direct relationship to government programs or economic policies. It is another to ask political leaders to respond to hunger, whose prevalence is directly associated with such programs and policies.

It is impossible to trace the origins of domestic hunger without addressing the status of low-income Americans. Hunger is, after all, a reflection of economic status almost by definition. The federal poverty line itself is based on the level below which a household's income is inadequate to feed its members.

We attempted to better understand the relationship between governmental policies and hunger today by analyzing three issues which we found to be associated with hunger's return. The first factor, of somewhat longer duration than the others, is America's relatively weak "safety net," the array of programs and services designed to protect citizens during times of bad luck and economic downturns.

We are one of only two industrial nations in the world that does not have a national health program (the other is South Africa). We stand woefully behind many such nations in

terms of day care programs which maintain stability in families where breadwinners may not otherwise be able to hold their jobs. And our assistance to the poor frequently serves to perpetuate dependency rather than to get them back on their feet.

In half the states of the nation the federal AFDC program, providing public assistance to children in impoverished households, comes into play only if the father first deserts the home. This policy drives many families to split apart when desperate, unemployed fathers realize that their presence is keeping their children from eating. Those fortunate enough to receive assistance find that benefits are unrealistically low; in no state are benefits enough to raise the average family to the poverty line. Benefits for a family of four range from \$201 monthly in Texas, to \$400 in Pennsylvania and \$660 in California.

Moreover, AFDC benefits have dropped nearly 40 percent the past decade, meaning a substantial loss in purchasing power as benefits have failed to keep pace with inflation. In addition, according to Agriculture Department analyses, food stamp recipients suffered a 20 percent reduction compared to inflation. Today the average food stamp benefit in the nation is 49 cents per person per meal.

A second factor associated with the return of hunger was the recession that occurred in the latter part of the 1970s and early '80s. Inflation increased to a double-digit level and unemployment rose to 10.8 percent in 1983, a level not seen since the Great Depression. Poverty in America reached a modern-era high of 35.3 million people by the beginning of 1984. More than 14 percent of the population, about one in every seven people, lived on annual incomes below the federal poverty level.

It was also at this time that a third factor came into play. Fueled by "supply-side" or "trickle-down" economics, Washington policy-makers instituted the sharpest cutbacks ever made in federal aid and food assistance programs. It was argued that the poor or "truly needy" would not be hurt by these cuts, and that in any event such economic policies eventually would trickle down and help the poor.

Starting in 1982 and extending into 1983 and beyond, changes were enacted in the food stamp program that cut benefits and eliminated more than one million recipients. Some changes made it far more likely that



otherwise needy and eligible applicants would be denied benefits. A 1987 study by the General Accounting Office concludes that nearly one of every four applicants denied admission to the food stamp program is actually eligible, but that a series of bureaucratic barriers make it virtually impossible to get through the application process.

Child nutrition programs also were cut, particularly school meals that had assured impoverished youngsters a hot breakfast or lunch each day. Altogether, more than \$12 billion were cut from the school meals and food stamp programs alone between 1982 and 1985. These cuts, coming at a time of unusually high economic deprivation and paralleling cutbacks in still other crucial programs, served to knock the props from under many American families, the new poor and the still-poor. No safety net was there to catch them, and they fell into the growing bread lines of the nation.

The recession began to wind down by 1983, unemployment fell to six

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*In 1983 Edwin Meese  
claimed that people  
stand in breadlines  
not because they are  
hungry, but "because  
the food is free."*

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percent by 1987, and inflation dropped to about three percent. Many of the unemployed returned to work, a result of the 13 million new jobs created in this decade. The growing economy

seemed strong and should have been a major factor in remedying domestic hunger.

But various reports throughout 1986 and 1987 indicated that the problem of hunger actually had worsened in some regions. The existence of nearly 20 million hungry people during a major economic recovery seemed a paradox.

The existence of hunger amidst plenty perplexed many, including those of us on the Physician Task Force on Hunger in America. In the spring of 1987, we returned to regions of the nation where we had once been, to examine the circumstances of the poor and the quality of their nutrient intake. We found no evidence that hunger and related health problems had declined, but in the course of our field visits we learned a lot about how the recovery is affecting the lives of poor families.

Above all, we learned that we had been asking the wrong question. The issue is not whether the nation is experiencing economic growth, but



*A woman is interviewed by task force doctors, 1986, in her Mississippi Delta home.*



which sectors of the economy are benefiting from the boom.

America has returned to work, but there has been a transformation in the job market, including a down-scaling of wages in the economy. Of the 13 million new jobs, 8.2 million are at wages less than \$7,000 a year. The displaced factory workers we had seen several years before, people whose earnings ranged to \$18 hourly, were employed again. But their pay was now a third of what it had been, and frequently less.

Our field investigations in California, for example, served to place a smudge on the glossy promise of the developing high-tech and service industry jobs of the nation. From the service-based economies of San Bernardino communities to the high-tech industry of the Silicon Valley, California projects itself as a vision of tomorrow, a land of jobs and opportunity. Yet beneath this image is another truth. Some 3.6 million residents live in poverty, nearly 1.5 million of them children.

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Assembly line workers join service industry employees in an economy where millions work full time at poverty-level wages. Many of them we discovered have no health insurance,

living but a paycheck or two from potential disaster.

In the heart of Santa Clara County, San Jose is one of the more affluent cities in America and a major center of the microelectronics industry. But in 1985 the computer-related industry began laying off workers in efforts to maximize profitability. Santa Clara reported a loss of 11,500 jobs related to electronics, mostly in semiconductor and computer firms.

Many of these workers face periodic hunger and line their children up for free food donations. Every month the Santa Clara food bank feeds 35,000 people in the area, a large proportion of them working families whose incomes are too low to provide an adequate supply of food.

The downward trend in the national wage scale began around the turn of the decade. Since 1980, half of all jobs created in the nation have failed to keep families out of poverty. Changes in tax policies during the



Larry Brown interviews a pregnant woman and her two children. At the time of his visit in 1985 they had no food in the house.

PHOTO BY TOM POWELL, MISSISSIPPI GOVERNOR'S OFFICE



first half of the decade compounded their situation, as poverty-level households were forced to pay an increased proportion of their income in taxes.

Throughout this period, the income gap between rich and poor was widening. At the beginning of 1987 the government reported that the gap had reached the widest point recorded in the 40-year tracking of this index. The income gap between rich and poor had grown to \$40 annually in 1986, meaning that the wealthiest fifth of all households received that much more in national income than they would have were their share the same as in 1980.

Income inequality in America has grown because of three forces: the downscaling of wages, tax policies and weakened government programs. As wages and tax policies shifted the distribution of income away from the poor, weakened government assistance programs compounded their plight.

Just a few years earlier, the families of many low-wage workers would have been lifted out of poverty by programs that augmented their wages—housing assistance, medical assistance, day care, food stamps and AFDC. But these programs had been weakened, even though poverty had increased. Assistance programs lifted from poverty nearly 21 percent of poor families in 1979, but only 12.9 percent of such families by 1986.

As the index of income inequality reached its widest point recorded, so did the "poverty gap." The poverty gap is a measure of poverty preferred by many economists because it reflects not only the number of people in poverty, but also the degree of impoverishment. It is the total amount below the poverty line that the incomes of all poor households in the nation fall.

In 1979, the poverty gap had been about \$35 billion annually. By 1986, it had risen to \$50 billion. Poor people in the nation had become even more poor, even as a record percentage of them were working. Today 32.4 million Americans live in poverty.

In recent months growing bipartisan concern in Congress suggests that public officials may be willing to respond to widespread hunger and poverty. Over the past two years Congress has increased federal nutrition programs by nearly \$2 billion. But evidence indicates that it will take another \$4-5 billion annually to eliminate hunger alone.

The primary obstacle to addressing hunger and adverse health outcomes

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associated with inadequate food supply is different today than it was several years ago. It would now be unfashionable to claim, as then-Presidential Counselor Edwin Meese did in 1983, that all the studies documenting hunger were only "anecdotal," and that people stand in bread lines not because they are hungry but "because the food is free."

Today the chief obstacle to ending hunger in America is the looming federal budget deficit. On one side are some elected officials who argue that the nation simply cannot do more, no matter how serious the problem, until the deficit is drastically reduced. Countering their position are those who believe that the nation does not have a problem of resources but of priorities. We are the wealthiest democracy in the world, yet the only industrialized nation that has a widespread hunger problem. Surely, they maintain, we can resolve such a basic human need as hunger when nations less well-off than ours have done so.

Whatever the outcome of the debate in Washington, poverty and its first-born, hunger, are now issues of public concern. Americans have come to realize the seriousness of these problems, and their concern is expressed not only in public opinion polls but in the fact that the current group of presidential aspirants feels compelled to talk about poverty, homelessness and hunger.

For our group of doctors who set out nearly five years ago to document the seriousness of the problem and to inform the nation of our findings, the odyssey has been an unusual one. Our

journey took us all across the nation, and into the cities and backroads of 25 states. We entered the private lives of ordinary people and became aware of the unusual power of public leaders who influence their well-being. We were made joyful by the decency of common people and angry by the policies which cause them pain. We laughed at the antics of little children and were moved by the painful lives they lead.

We became the vehicle through which substantial national attention was devoted to the plight of the hungry, and we pleaded in Congress for those who don't have the opportunity to speak for themselves. But we also became the subject of vilification by some political leaders who found our work an annoyance. At one point political extremists disrupted our discussions with poor families in Austin, Texas, and another time, White House officials tried to intervene in our work. We even received a telephone death threat from a citizen in Montana.

None of this, however disconcerting at the time, made us consider stopping. It was all part of an effort to determine the causes and consequences of hunger in our land, and to end the toll it takes on human health. Our work was perhaps unusual, but it came quite naturally once we started. The clinicians in our group considered it the logical extension of their work, and those of us who are academics learned that seeing the faces and circumstances behind the statistics lent an insight often missed in more ordinary research.

Perhaps none of us will ever be quite the same for what we have learned and seen. But the more important consideration is whether our nation will remain the same, or whether we as a people will respond to the man-made disease of hunger, an epidemic that is wholly preventable. Ending hunger in America is the challenge that lies before us all and is, hopefully, the last leg of the journey upon which our small group embarked without fully understanding its dimensions. □

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*J. Larry Brown, PhD, is chairman of the Physician Task Force on Hunger in America, and director of the Community Health Improvement Program at Harvard School of Public Health where he is on the faculty. His latest book, Living Hungry in America (Macmillan, New York), is a behind-the-scenes chronicle of the re-discovery of hunger in the nation.*



I t wasn't that I hadn't treated a knife wound before. It was what this young man said to me when I joked about being a medical student in need of suturing experience. "Don't go to sleep yet, doc. You'll be getting a lot more practice when the guy who did this to me comes rolling in."

I saw no more lacerations that night, but it really didn't matter. This young man's remarks sparked an interest in interpersonal violence that has absorbed me professionally for the past nine years and remains an important part of my work even today.

During the weeks following this incident, a number of ethical and practical questions gnawed at me: If that young man had exacted revenge on his assailant, would I have been responsible, since I had heard the threat yet made no attempt to detain him at the hospital? How extensive is interpersonal violence in our society? Why is there such violence? What kinds of preventive measures could be successful in reducing it?

I was allowed to pursue my interest in interpersonal violence in a student project that same year at Boston City Hospital. I spent a good bit of time in the stacks at the Countway and Boston University libraries poring over the social science and public health literature, trying to understand violence. Interestingly, at the time I was doing this research, it was unusual for a medical student to allot precious study time to a seemingly non-medical endeavor. In retrospect, I realize it was an invaluable lesson in the role societal factors can play in health and illness, and how an understanding of these factors, even at the level of the doctor-patient relationship, can be critical in preventing illness and injury.

What really captured my interest in the subject was, for me, two startling discoveries—the great prevalence of interpersonal violence in our society and the over-representation of blacks in these data. Neither has changed much today. The United States has the fifth highest homicide rate in the world. Mexico, Brazil, Peru and Thailand have higher rates, but these countries have recently been at war or have experienced major economic and political upheavals. Our homicide rate is 10 times that of Great Britain, 25 times that of Spain and 50 times that of New Zealand.

Our rate of 10 homicides per 100,000 population translates into about 20,000 homicides each year. Seventy percent of the victims of

# Eye for an Eye

## *The Fight Against Adolescent Violence*

by Deborah Prothrow-Stith

these homicides are men and 50 percent are under age 35. From the perspective of lost productivity, homicide is the fourth leading cause of life-years lost.

Moreover, it is the second leading cause of death for teenagers and the leading cause of death for young black men. Forty-nine percent of the 20,000 homicides in the United States each year occur in settings where the victim and assailant know each other. Thirty-three percent of the time the assailant and the victim are friends or acquaintances, and 16 percent of the time they are even members of the same family.

In 47 percent of the cases an argument can be established as the cause, whereas violence during the commission of another crime, such as robbery, accounts for only 15 percent. Half the victims have been drinking prior to the assault and half the homicides are committed with handguns. Indeed, the most usual homicide setting is one in which two people who know each other are drinking and arguing, and one or both have a handgun.

Homicide, though, is only the tip of the iceberg. For each homicide, there are 100 assaults reported to the police, and four times that number reported in the emergency room.

My work on adolescent violence became more formalized in 1985 when I co-founded the Health Promotion Center for Urban Youth in Boston's Department of Health and Hospitals. This opportunity provided a footing to embark on my own investigations into violence while still practicing medicine. It also forced me to look at violence from a new perspective.

Although traditionally physical violence has been considered a criminal justice issue, it is also legitimately a public health issue. The classic public health model of disease attributes the occurrence of disease to complicated interactions among the environment, the pathogen and the host. In addition to diseases, this model has long been applied to injuries, although just to unintentional ones. Only recently has it been applied to intentional injuries.

The public health interventions that have been most successfully applied to unintentional injuries are those that focus on manipulating the environment. Environmental manipulations of the course of *intentional* injuries have been decidedly less effective. For example, a safety lock on the trigger of a handgun might be expected to reduce handgun accidents considerably, yet this intervention would not be expected to have the same effect on intentional shootings.

The violence literature strongly suggests that the most effective approach to the prevention of violence is alteration of the host (victim), or the pathogen (assailant), or both. And this, of course, requires changing human attitudes and behavior, to make the host more resistant to the disease and the pathogen less virulent.

What is the nature of such an







intervention? It is the same as has been successfully used with many diseases with behavioral risk factors, such as cancer and heart disease— education.

One of the difficulties with employing educational interventions in our society, however, is that certain components of the environment, components that theoretically can be controlled, work against it. We see this today in trying to combat heart disease and cancer. Although much of the romanticizing of smoking has been toned down, cigarette advertisements on billboards and in magazines still cut into our progress to reduce these diseases.

With violence, similarly, important institutions and leaders of our society are sending unhealthy messages to our children. Hollywood movies, now ubiquitous with the advent of cable TV and VCRs, are the biggest culprits, presenting violence as a glamorous way to solve a problem or make a point. But the media is not fully to blame. How many young boys have been admonished by their fathers not to be bullied around, but to fight back? How many school principals and teachers have said, "That kid deserved to be hit"? And then there's the foreign policy rhetoric of "The Great Communicator," President Reagan, which includes the bellicose one-liner from Clint Eastwood's *Dirty Harry*, "Go ahead, make my day."

Notwithstanding this difficult environment in which to teach against violence, I strongly believe that we can make good progress, especially through formal education. In fact, my former colleagues at Boston City Hospital and I developed and tested a "violence curriculum" in several greater Boston schools. The results of our work showed that knowledge about violence can be increased and violence reduced at the crucial stage of adolescence. One of the principles we taught was that anger is normal, yet it need not be expressed in violence, and that other societally acceptable and more effective ways of channeling anger exist.

Inquiring into the causes of adolescent violence, I found that certain psychological characteristics of adolescents can be catalysts of violence. These became crucial in the development and use of the violence curriculum. One such characteristic is narcissism.

Narcissism helps the adolescent



make the transition from family to the outside world. Yet this narcissism is also responsible for the extreme self-consciousness of adolescents, which makes them vulnerable to embarrassment. Adolescents feel that they are always in the limelight. They are particularly sensitive to verbal attack, and it is nearly impossible for them to minimize or ignore embarrassments.

Another adolescent characteristic that predisposes them to violence is the transient stage of extreme sexual identity, or "macho." Establishing a healthy sexual identity requires transient stages of extreme femininity for girls and macho for boys. Macho is often synonymous with "violent." Indeed, the image of a coward is a deadly one for a male adolescent at this stage.

Peer pressure has been labeled the single most important determinant of adolescent behavior. This vulnerability to peer pressure, a normal part of adolescence, facilitates the accomplishment of several developmental tasks. Yet it also is a characteristic of adolescence that enhances the predisposition for violence. If fighting is the expectation of peers, then an adolescent is often unable to disregard those expectations.

We also found evidence in the literature of the existence of a societal moratorium from responsibility during adolescence that allows the requisite experimental behavior to occur without compromising future options. The adolescent is able to adopt a variety of roles without making a commitment. Although it is debatable whether this moratorium occurs at all, most agree that for youths living in poverty, it does not. The poor adolescent struggles with developmental tasks without the protection of a soci-

etal moratorium.

Black adolescents, and to a lesser extent other youths "of color," are in a more difficult situation, as they must develop a healthy racial identity in addition to these developmental tasks. Contact with racism results in anger, and that appears to contribute to the overrepresentation of black youth in interpersonal violence.

Violence prevention programs that are developmentally appropriate for adolescents and have a realistic cultural context can be effective. Developmentally appropriate programs utilize peers in education and counseling and reflect an understanding of the stages of adolescent development. They have a cultural context within which the violence, racism and classism that many such adolescents experience is acknowledged.

I became commissioner of public health in Massachusetts last October, which I like to think will enable me to do more to stem the epidemic of violence. As a practicing physician my role in relation to violence was limited to patching up the victims. Through the health promotion program at BCH, I was able to develop and implement educational interventions. Now in my current capacity I hope to foster more research and intervention programs.

I realize, of course, that though I may be successful in these efforts, it won't mean an end to adolescent violence in our society. The public health model of disease as applied to violence makes it glaringly obvious that the fundamental causes of violence in our society lie in our environment—our social environment, whose poverty, injustice, racism and indignity create what social scientist Lewis Ramsey calls a "free floating anger" that often explodes into violence. This unhealthy environment is what I'd like to work on next. □

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*Deborah Prothrow-Stith '79 is commissioner of public health in Massachusetts. She is an assistant professor of medicine at Boston University School of Medicine, was co-director of the Health Promotion Program for Urban Youth for Boston's Department of Health and Hospitals, and was chairperson of the Boston School Department's Adolescent Issues Task Force.*





# OUT OF AFRICA



## Message From Ethiopia

by Maxon Eddy

*Maxon Eddy '35 quit his successful surgical practice in 1969 and spent the next 10 years overseas in less developed countries with his wife, Virginia. The following piece is reprinted from a collection of his writings compiled after Eddy's death in 1982 by his long-time friend, George Crile Jr. '33.*

I discontinued my private practice of surgery in November 1969 to devote my time and energy to various aspects of surgery as a volunteer in developing countries.

My wife was enthusiastic about the decision. Although she was not a

nurse, she had worked as a nurse's aide and was experienced in office management and library organization. We were sure she could be helpful wherever we went.

During the next two years we were in Gondar, Ethiopia, the 17th-century capital of the country, located on the central plateau about 7,000 feet above sea level. There we worked in the 160-bed hospital at the Public Health College, a branch of the Haile Sellassie I University in Addis Ababa. When I arrived I was the only surgeon at the only hospital, serving three and a half million inhabitants in the province of Begemidir.

For shorter periods of time thereafter we were at the Shanta Bhawan Hospital in Kathmandu, Nepal; the Grenfell Association in Saint Andrews, Newfoundland; the Avicenna Hospital in Kabul, Afghanistan; and a hospital in Solo, Indonesia. Twice we worked at Dr. Larimore Mellon's L'Hopital Albert Schweitzer in Des Chapelle, Haiti.

Our first reaction to the bewildering culture of Ethiopia was a numbing shock. After less than 24 hours traveling time our pace abruptly slowed from 500 miles an hour in the air to the weary gait of an old woman carrying on her back a cask of water



weighing 75 pounds, or an equally heavy bundle of faggots or cow patties. On her face and in her staring eyes was imprinted the pain of thousands of her sisters who, like her, had suffered during most of their lives from the raw bleeding grooves across their chests and shoulders gouged by thongs lashing the burdens to their backs. Poverty and ignorance were appalling: beggars everywhere. Belief in witch doctors (wageshas) was deep-seated and almost universal.

In this cruelly patriarchal society the man, never carrying more than a gun or a weighted stick, walked pompously along the trail in front of the woman, who humbly trudged behind,

usually carrying a baby on her back, a bundle on her head and produce for or from the market in her arms.

The scene, as old as Ethiopia itself, of a barefooted farmer stumbling behind a bullock dragging a stick to plow the caked earth was difficult to place in the same world with our monster machines cultivating and harvesting hundreds of acres a day.

People were drinking, bathing,

urinating and washing clothes in a small trickling stream. Diseases almost completely eradicated in the western world were commonly seen: tuberculosis, typhoid fever, smallpox, rabies, cholera, leprosy and parasitic infestation.

I had been there long enough to see only the material deprivation and suffering of the people. I was not yet familiar with their simplicity and di-

The answer to the question, "Why did I come here?" is "Because I wanted to." That sounds like a child's answer and I guess it is. But there was a compelling urge to do something like this which would have found expression one way or another. Perhaps there are wandering genes within me from two great uncles who were medical missionaries in the 19th century in China and Alaska.

At any rate, I felt that I had known only half of mankind - my half. Others were a mystery to me. My facile talk about the needs of those in distant parts of the world, living in varying degrees of underdevelopment, was without substance or meaning.

This desire to understand our fellow man, now spatially and temporally so close to us, is what has scattered so many of our sons and daughters to the earth's far corners. Our willingness to remain complacent with our own over-abundance while others lack many of the essentials of life - to say nothing of liberty and the pursuit of happiness - has undoubtedly contributed to the rejection by some youths of our way of life.

I had been blessed with a community of friends and patients whose faith and respect I had enjoyed. I did not want to linger among them with unrecognized, or worse, unadmitted faltering steps - not too far ahead for me. I did not want to join the aging and failing physicians whose weaknesses and mistakes were supported and protected by the silence of their colleagues.

New pressures were forcing a cleavage between doctors and patients. In response to them, it seemed to me that doctors were increasingly becoming merchants, bargaining at the counter or scheming in the dim light of side corridors to maintain the status quo for their own advantage. This might be expected of the few 'bad guys' who are always with us but it hurt to see the 'good guys' following the same course.

Then late one evening, an overwhelming compulsion seized me. That is when I ran to the window, opened it wide and cried into the star-lit night, "Dear God, if I still have a chance, let me out of here - now!"

I have lived in a world of physical facts and have had little experience with metaphysics. But at that moment I seemed to be transformed. A rapid

succession of thoughts and sensations rushed through my mind and body. I sensed an exhilarated release and a new freedom; a warm flow of excitement and energy. Buried dreams came alive again in the promise of high adventure and new accomplishments.

I wanted to tear away the paper barrier between myself and those I professionally cared for. I wanted to avoid the hours and days lost in futile discussion; to be free of the restrictions of uncertain statutes and ever-changing regulations.

I wanted to be close to my fellow man; to dig deep into the depths of the soil with him and to smell of the vineyard at the end of the day. I wanted to help lift his spirits high because he was a man with the right to the same high hopes as I.

I wanted to return to the joy and constant truths of natural things; to feel the wild winds blow the rubbish from my soul; to hear the oursting magic of every fresh new lovely flower; to shake with the thunder in the clouds close over head.

I wanted to believe again in heroes too easily denied by the cynicism of little men and to find that the future of God's people is bright. I wanted to see the sedge unwithered by the lake and to know that birds do sing.

When I face God, and it may be for only an instant before I die or for all eternity - it matters not - and I am asked, "What did you bring in your pack?" I want to be able to answer, "Nothing. It is empty. I gave it all along the way. I have no treasured keeping stored in latest styrofoam. I have no prideful thing."

I want to run the last miles hard with my friend's hand in mine and when, exhausted, I fall on God's doorstep I want my last strength to be a whispered, "Thank you."

I guess that is why I came to Ethiopia. I may not find it all, but if through patient care and student teaching even a few of these people learn that there is an alternative to the desperate conditions they have lived with and accepted for hundreds and thousands of years, that will be enough for me.



rectness; their traditional courage and pride; their humor and, above all, their faith in the natural process.

Soon after our arrival in Ethiopia I received many letters from friends, most of them asking, "Why did you go to Ethiopia?" To simplify answering them, I wrote a single letter of explanation and sent a copy whenever appropriate.

I must describe the circumstances in which this letter was written for the reader to understand some of its contents. I am afraid my over-stimulated emotions at times dominated rational thinking.

I wrote the letter one evening about 10 o'clock while sitting outdoors at a table in the enclosure behind our living quarters which were near the hospital. Our compound was on rolling ground surrounded by spectacular craggy mountains, except toward the east where the land sloped to a river valley. As the light from the African full moon and sparkling stars shone through the dark blue velvety mantle close above me, the glare and harshness were filtered from it leaving a glow, soft and subdued, yet almost as illuminating as the light of day.

In the valley the mosaic of tin and thatched roofs of the cottages and huts, respectively reflecting and absorbing the night light, resembled a huge checkered table cloth spread below me. Dim lights shining through window openings in the mud and dung walls twinkled like lighted candles on a banquet table.

The night was silent except for the occasional intruding "caw" of the stanbird and the distant barking of wild dogs. Mingled with the tinkle of cattle bells were sharp cracks of bull whips snapped by shepherd boys during their night watch over the herds on nearby hillsides. The gentle stir in the air would have been unnoticed had it not borne on it the exotic fragrance of the night-blooming camelin flower.

I had been told of the bewitching African night but to find myself in it was an unearthly and mystical experience. I could not imagine a more enchanting time and place. It presented the paradox in all love and beauty: the desire to keep forever for oneself the exquisite perfection of the moment by destroying it, lest it change or vanish like a dream.

Such a setting could only produce the exalted mood in which I wrote the letter. Because I believe it reveals the depth of my feelings at that time, I shall record it here. □

# Response to Distant Suffering

by Jody Heymann

Both before and since entering medical school, I have been fortunate enough to have several opportunities to work overseas. The most recent was with my husband, Tim, who is a physician. We spent our honeymoon working at the Albert Schweitzer Hospital in Gabon, an experience we would not have traded for anything. No amount of money could ever replace the chance to get to know a new culture, and to have an impact on the lives of people who might otherwise never be able to see a doctor.

Schweitzer, with his doctorates in philosophy and theology (as well as music), wrote far more eloquently than I ever could about the moral reasons to work overseas, and about society's and a physician's responsibility towards all the sick, regardless of their nationality. I would like to share some of our experiences and those of our patients with the hope

that these stories may make others want to leave a CAT scan, a reliable laboratory and their home behind for a period of time to trade the known for the unknown.

There is immense variety in the work health care professionals do in countries that have different socioeconomic, cultural and political settings; there are also several important shared characteristics. The Schweitzer Hospital illustrates well three of these characteristics: you learn about medicine in ways you never would at home, you learn about another part of the world, and most important, you know you are having an impact on people's lives.

To live and work overseas is to enter a different world of medicine as well as a different society. As second-year medical students trying to learn



*The old pediatrics ward.*





*A small daily market in front of medical ward.*

mountains of details, we joked about whether "uncommon manifestations of common diseases or common manifestations of uncommon diseases" were more common. The answer in Africa is that both are common. If you live near the Serengeti and you hear hoofbeats, think of zebras.

In one afternoon at the outpatient clinic, patients came with problems ranging from tertiary syphilis to worms crawling across their eyes. A typical evening, the pediatrics ward housed children with such diseases as sickle cell crisis caused by malaria, Buruli ulcers and hemorrhagic fever.

Although the Schweitzer Hospital is very well equipped compared to most hospitals in developing countries, many simple lab tests are unavailable. We could not measure pH or a patient's bicarbonate. Therapeutic options were also limited. Although syphilis is prevalent in about 20 percent of the area's population, and AIDS is a growing threat, we could not provide condoms.

There are not enough support staff. There are no ambulance drivers, no services for the elderly or disabled. Nursing is limited to taking vital signs and giving medicines. There is no kitchen; patients must have their families come to cook for them as well as to change sheets and bed pans. The medical staff is also sparse. There are no specialists to consult. The sole pediatrician at the hospital has no colleagues to turn to for advice on difficult cases.

Yet for everything given up, there is something gained in return. The absence of professional support services is often gravely felt; instead, family members play an increased role. Mbinga (I've changed the names of patients and staff) was carried on his brother's back from his village to the hospital. Mbinga's body, from eyes to ankles, was too swollen for him to walk. His kidneys had shut down, and anemia and uremia had set in.

For him to receive blood, a family member had to donate it, but each member tested was also severely anemic. His brother, the least anemic, gave blood. The whole family stayed in the hospital. They did everything—bathed him, changed his clothes, and helped him move into less painful positions. Their love could not save his life, but it did more to ease his passing than anything we as physicians had to offer.

Without many diagnostic facilities, physicians are forced to sharpen clinical skills. A patient who stays in my thoughts is Elise, a three-year-old who had been in the hospital for three weeks without getting better. She sat with tears in her eyes, wanting to go home. Beside her was her fever chart, one of the few diagnostic tests we had available. One day I noticed the weekly periodicity of her fever spikes and suggested the possibility of relapsing fever to the pediatrician. We had no facilities to test for *Borrelia* and prove the diagnosis, but she was treated and became symptom free.

The next week as I watched her leave for her village, playing with her mother, I felt for the first time that I had made a difference.

The lack of extensive laboratory facilities creates an increased reliance on history-taking and physical examination skills. The lack of consultants sends one back to the books. Simon had had a progressive skin disease for three years. He arrived at the hospital depressed, unable to work, with intensely pruritic lesions that covered his body from head to toe. It looked like nothing the staff had ever seen. Where are dermatologists when you need them?

Searching through the medical library's books, we found three that pictured tropical skin lesions. After hours of reading, it became clear that Simon might have an advanced form of onchocerciasis. Reexamining him, we found many of the classic signs, including a "hanging groin" from swollen inguinal nodes. The diagnosis was later confirmed when we observed filaria in a skin snip.

In a role familiar to sole practitioners, we learned about all aspects of our patients' health, from their loss of vision to their gynecological problems. We knew that for many of our patients, we were their only source of medical care. When we visited nearby villages, we were often greeted by patients and their families.

The physical differences of life in Gabon were immediately striking. All the hospital wards and clinics are connected by outdoor walks. We walked under blue skies, drenching rains and moonlight. There were bats flying across the path to the medicine ward on night call, and hundreds of swallows flying outside the clinic as day broke. Our nights were spent during the rainy season either in sweltering heat or watching tropical storms with lightning that brought the entire sky into daylight and then back into complete darkness. We listened to rolling waves of thunder reverberate through the sky and mistaken roosters begin their call at 1:30 in the morning.

Many of the cultural differences are less immediately obvious. But as a physician, the doors to cultures and societies are opened in unique ways. Each day in clinic as we heard patients' histories, we also learned about life working on the plantations, about what was involved in being chief of a village, and about how rural life along the river had changed over the past 50 years. Tim and I were welcomed by our patients and by co-workers to



participate in parts of their lives that we never would have been privy to as visitors.

One day Pierre, a co-worker, invited us to his home village to watch the initiation rights of boys into manhood. After work, we followed him along a narrow jungle path. The path was barely visible with shadows of palms cast across it, lit only by the moon and thousands of clear stars in a dark blue sky. We crossed a stream and, as its noise died down, we began to hear drums and chanting in the distance.

Men stood in a semicircle around a fire, tuning their drums and lighting torches. The young men danced with the flaming torches, and pantomimed stories as masked figures ran out of the huts. No picture could capture that scene: men running through the village, spraying firelight throughout, leaving complete darkness behind; the incense of the burning brush; the chants in crescendo with the drumbeats and dance, then back into silence.

Marie worked both at the Schweitzer Hospital as a nurse and as an assistant to her grandmother Marcelline, a traditional healer. She invited us to watch her grandmother's methods of healing. The morning started out in the ceremonial hut with only those who had been "initiated" during previous healings. Drums were followed by whistles, chants and the sounding of antelope horns. The cloth that covered the front of the hut began to shake rhythmically as the bodies of the initiated pressed behind it. They danced outside led by Marcelline, who had been taken over by Jean, the spirit that heals. The patient was visibly shaken by the spirit that was making her sick. A day of dancing, ritual burial, and listening to the spirit that had made her sick led to a diagnosis. The subsequent herbal treatments would take one to two months.

Patients came to Marcelline with a variety of complaints—infertility, children who could not talk, men 'sick at heart'. There was a healthy exchange between the Schweitzer hospital and Marcelline, each recognizing that there were illnesses the other was better at healing.

In a poor community overseas, there are frustrations over lack of adequate resources and insufficient time to care for all patients. But there is no doubt physicians are needed. Although Gabon is a relatively wealthy country by African standards, they greatly need doctors.

I will always remember one elderly couple who demonstrated for me some of the differences between routine medical care in the United States and in Gabon. A year before I met her, Ana Marie had come to the clinic because of her headaches. She was severely hypertensive, was started on medicine and given a return appointment in a week. At the return visit, she was asked to come back for a follow-up appointment in two weeks and then again in another two weeks to ensure that her blood pressure was under control.

The physician had not asked what a return visit involved. Ana Marie and her husband, Jean, lived far down river with only a dugout canoe and a paddle for transportation. Paddling up river to the hospital was a several-day trip, all the more difficult because of their age. (They could not tell you their own age but their wrinkles, white hair, and great-grandchildren revealed they were no longer young.) To make the trip in a single day, they had to

rent a small motor and buy enough gas for the 15-hour trip. Their savings would not stretch this far for long.

In a clinic with few doctors and overflowing patients, no one had taken the time to explain carefully to Ana Marie and Jean how to take the medicines. Jean could not read the instructions on the packets—he couldn't distinguish the number 3 on one from the 1 on the other—but could remember once he understood how to give the medicine. Nobody had taken the time except he and his wife. They took the time to memorize appointment dates they couldn't read on the slip, and the time to come back up river.

Similar distances were also traveled by patients in emergencies. A young woman arrived in the middle of the night after a 12-hour boat ride. She had gone into labor the day before, had begun to hemorrhage, and had not yet delivered. But when she did deliver, the baby was dead.

Patients sometimes waited hours



*Patients with leprosy waiting for wounds to be cleaned.*





*Hospital nurse outside her home.*

for a brief outpatient visit, even if they were acutely ill or had a serious disease that had long gone untreated. One afternoon in the outpatient clinic, a young girl sat patiently in the waiting room two hours for her 10-minute turn. From across the way she looked pregnant with triplets. As she came closer, I realized her stomach was bloated beyond any pregnancy, filled with ascitic fluid from an unknown cause. It had been slowly growing for a year. At first she had thought it was a pregnancy, but as she felt no movements and it continued to grow until her

breathing became labored, she realized it could not be a child. Her family packed their possessions, a mattress, cooking gear, and a store of manioc (a staple food), to care for her during the trip to and stay at the hospital. That same afternoon, an elderly man, septic from an acute bacterial pneumonia, also waited several hours after a day-long journey to be seen.

Clinics and hospitals in rural areas depend on generalists to run the internal medicine, pediatric, and surgical branches of the hospital. With only one pediatrician, two internists and two surgeons to run both the inpatient and outpatient services—which together treat over 3000 inpatients and almost 19,000 outpatients a year—generalists play a critical role at the Schweitzer Hospital. The need is even greater at many other rural hospitals.

The contributions specialists could make in this setting is also immeasurable. Blindness is a common and devastating problem. Without services for the handicapped or social security for the elderly, blindness can threaten the survival of a great number of the elderly. One ophthalmologist saw 132 new patients and 64 follow-ups during a two-week stay.

Two elderly brothers came together to the clinic one day; the younger, George, with very minimal eyesight, led the older, Gerard, who walked with a long stick as a cane. Gerard had one eye that was completely white, the other, opacified with only minimal light perception. Georges had dense

cataracts. Without surgery, both would soon be unable to care for themselves. They had no family remaining and no public services to help them. But unfortunately there were also no ophthalmologists at that time at the Schweitzer Hospital.

Two arguments are often raised against sending physicians to countries that cannot meet their own demand. The first is that physicians are needed in the United States. This is true but has no more relevance than to say more physicians are needed in Montana, so we should not allow anyone to practice in the South Bronx. Schweitzer wrote "concern for nearby suffering and distant suffering are not incompatible."

The second argument is that developing countries need improved public health, not curative medicine. The goals of providing good preventive medicine and curative medicine are not mutually exclusive. We would not be satisfied to provide only vaccinations, but no hospitals, in our own poor rural areas and inner cities. I do not believe we should be satisfied if poor people in developing countries receive adequate preventive but inadequate curative care. Many illnesses in developing countries remain unpreventable yet treatable—including severely disabling diseases such as leprosy and cataracts, and life-threatening ones such as malaria and pneumonia.

One serious issue raised by sending physicians overseas is that of long-term dependence. This needs to be addressed by increasing the role of physicians in training health care professionals in their home countries and by supporting programs to train health care professionals overseas.

Why did we go overseas? It was not so we could spend the first days of our honeymoon so drenched in sweat that we didn't even want to hold hands. Nothing could replace for us the special days and evenings we spent learning about and sharing in different aspects of village life and patient care. □

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*Traditional healing.*



# Tour of Duty



## *A Medical Academic in the White House*

by Bernadine P. Healy

**M**edicine is about people. And so is government. The one microfocused on the health of the individual and the other broadly embracing the health of the public and society. Nevertheless, the leadership in both medicine and government shares social values in their loftiest form: the protection of life, the improvement of quality of life, and the continuous pursuit of better ways to ensure these goals.

In a concrete and practical sense, medicine has become a large component of our society. Americans are concerned about their health and are constantly being educated about it. They avidly talk, listen and read about it, and at the very least, know its value (whether they learn it from the supermarket tabloids or the oft-quoted general medical journals preferred by the media).

On an even more mundane level, medicine has grown to represent over 11 percent of our GNP. In the latter 1980s, our economy has emerged as heavily service-oriented, and medicine might be viewed as the ultimate service. Medicine exists to serve the public; and in that context, the gov-

*I know no safe depository of the ultimate powers of the society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them but to inform their discretion.*

THOMAS JEFFERSON

ernment, politics and perceptions of the public have become perhaps *the* variables most important to the future of medicine.

Three trends have made this especially true. The first is the growth of government as third-party payer of nearly one-third of our medical bills. The second is the increasing regulatory role of government over the medical industry, through the Food and Drug Administration (FDA) with regard to drugs and devices, and through the Health Care Finance Administration (HCFA) with regard to reimbursement for new procedures. The third is the dominance of government funds in support not just of biomedical research, but of our research universities in general.

With these realities in mind, it becomes easy to support the notion that it is vitally important for medi-

cine in general—and for academic medicine with its unique role, not only in health care, but in research and development—to be well represented in politics, public policy and government.

There are many ways in which we as physicians can become more involved in the policy-making

process. I myself have done so through public policy efforts of national organizations, by memberships on government policy advisory groups for several of our research and development (R & D) agencies and for Congress, and by serving for almost two years as deputy science advisor at the White House. These experiences have also afforded me the opportunity to observe other means for involvement, and to assess their value.

My plea is that such efforts, at local or national levels and however modest, should be undertaken by more members of our profession. Such efforts need not disrupt one's professional life. Rather, they broaden and enrich one's perspectives. In the process, one learns that individuals can make a difference, and that the reasons many in medicine give for not participating at some level are refutable.







In this country, we have over 500,000 physicians, including some 70,000 medical academics. These individuals are educated, concerned and socially responsible. But it is ordinarily difficult for them to have a noticeable effect on a given problem as isolated voices, as they can so readily in medicine. The various volunteer health and professional organizations—sometimes referred to as “organized medicine” in that they represent large numbers—*do* have a voice and, from what I have learned, have more of a voice and an effect than is generally recognized by the majority in our profession.

While in Washington, I grew to appreciate and greatly respect the role of organized medicine. Several years ago, I became active in the public policy group of the American Federation for Clinical Research (AFCR) and continued to participate until I became too old for the job (i.e., over 40). At the time, with youthful enthusiasm, our group vigilantly tracked issues of vital concern to young clinical investigators—the science budgets, animal care issues, the structure of the National Institutes of Health (NIH) and the regulation of clinical laboratories. We wrote letters, testified before Congress, joined larger councils of academic societies, worked with our elders in the American Society of Clinical Investigation (ASCI) and the American Association of Physicians (AAP), and consulted heavily with the American Association of Medical Colleges (AAMC).

We sponsored yearly public policy retreats to educate our governing board, and at our annual national meeting held a public policy symposium during the plenary session for all 15,000 members. We were all busy, upwardly mobile “young spirits” and never doubted the importance of what we were doing, even though our elders’ societies (ASCI and AAP) were sometimes skeptical. Now as an “elder” myself, I look back and believe that those efforts were and are a model of what should be done within many of our frequently intersecting medical groups. And with few exceptions, the important issues are the same, and consensus is not hard to achieve.

Since my time in Washington as a full-time public servant, I appreciate even more the value of the AFCR and the presence of the other key



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medical voices. The Institute of Medicine of the National Academy of Sciences plays a very important part in dealing with public policy and in presenting a respected, well-thought-out view from our professional experts. So does the AAMC and the Federation of American Societies for Experimental Biology (FASEB). The volunteer health organizations and some of the professional subspecialty groups raise intermittent but vital voices; at times, however, they suffer from the failure to act as a unit on the larger concerns affecting medicine as a whole. Although each group has its own favorite disease or practice and so, understandably, sets different priorities, there still needs to be some common focus on the issues relevant to our entire community of medicine. In this regard, I would like to mention the American Medical Association (AMA).

Although the AMA is not unanimously endorsed by the Harvard community, as I recall from when I was a student and as I observe today, I suggest that its detractors look again. The AMA of today focuses on the right issues, both in practice and in research, and supports them effectively. It has the unique advantage of being ecumenical—a qualitative and quantitative edge. It is qualitative in that it is truly medicine as a unit, with a single voice; and quantitative because it has a large constituency, with over 280,000 members. One thing politicians can do as well as anything is count. And when the AMA talks, the public and their elected representatives listen.

There are yet other ways for our profession to have its voice heard. Many private sector partners share some of our concerns, interests and needs with regard to government policy. One large group is comprised of the universities and their presidents and trustees. They are effective supporters of our national science base, knowing that the rising or falling tide of science and technology across government usually carries with it all the boats.

Another partner is industry, particularly the pharmaceutical and high technology corporations. Industries depend on R & D and know that most basic science is supported by the federal government. The future of our biomedical research enterprise is tightly linked to the future of our biomedical and biotechnology industries. Industry also has its own special access to and clout in the halls of government at either end of Pennsylvania Avenue. Industry leaders can be effective supporters of much of our message.

Prominent private citizens, ranging from Mary Lasker to Armand Hammer to Elizabeth Taylor, have shown how effective they can be in transmitting a well-heard message in support of medicine and medical research. And finally, our profession can have a heightened voice in politics if some of us are willing to serve, even briefly, in public office.

My own tour of duty at the White House Office of Science and Technology Policy (OSTP) was one of many such efforts. Although there is risk in leaving a stable but fast-paced academic life to step, with little preparation, into a startlingly new, totally different but equally fast-paced world—the rewards are well worth the trip. I found that the perspectives from the inside were humbling, enlightening and mostly reassuring.

On the one hand, there is something awesome about being at the White House—there is a strong sense of being one of many guests in someone else’s home or perhaps a small visitor to a great cathedral. You are enveloped daily by inspirational symbols of the history of our country: halls of portraits of past presidents and their wives, famous rooms and corridors that seem timeless with mementos, and everywhere, treasures from our great past. Then there are the widely-known people you see day to day, and the ceremony, including the flags, the marine bands, military guards, helicopters taking off from

*Opposite: Bernadine Healy and Otis Bowen, secretary of Health and Human Services, across from President Reagan.*



the White House lawn, and larger-than-life color photographs that change every week chronicling the events of recent history.

On the other hand, there is the routine which rapidly becomes commonplace, with the same crunches of time, the same low and lofty "politics," and the same sense of a job that must be done. I was immersed in a broad range of science issues at OSTP, including radiation safety, dioxin, acid rain, asbestos, nuclear winter, biotechnology, indirect cost, the biomedical research budget and the status of science in American universities. We had broad involvement in policy issues concerning all the R & D agencies, including the NIH, National Science Foundation (NSF) and National Aeronautics and Space Administration (NASA), and extensive discussions on whether or not there should be a department of science and technology.

Of these various activities and entities, I would like to comment further on three: the role of OSTP in biotechnology; the relationship of the White House and Congress with the NIH; and the White House Science Council's Panel on the Health of the Universities. Molecular biology and rapidly developing biotechnology at the brink of commercialization have ushered in the sense of a biological revolution that will affect our society as profoundly as did the revolution in physics in the early part of this century. The government is not just a sponsor of most underlying basic research leading to biotechnology, but also a regulator representing the public and environmental interests in evaluating risk as well as benefit.

OSTP played an active role in pulling together and helping to formulate the vastly different perspectives of the many mission agencies that have a stake in the biological revolution, including the NIH, NSF, Environmental Protection Agency (EPA), FDA, Occupational Safety and Health Administration (OSHA), United States Department of Agriculture, the Department of Commerce, and of course, ever present, the Office of Management and Budget (OMB). We chaired the federal advisory committee that brought together these diverse executive branch agencies, and the group developed policies and procedures and outlined them in a working document for public comment and implementation.

What also became apparent with the effort was that checks and balances



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did not just operate across the three branches of government but were keenly at work within each of them. Although that may make processes slow and at times painfully tedious, I have come away with a heightened sense of respect for our founding fathers' wisdom. These men from other centuries understood fully that only with internal checks and balances will our democratic systems of government endure.

The NIH was another major focus of my time in Washington. The NIH is a jewel—loved by all, especially Congress. But the budget process, by precedent and design, keeps the NIH under constant scrutiny, subject to much micromanagement and hostage to considerable pork-barrelling. What the academic community fears most is having its budget cut. That has never happened and it will never happen, as surely as one can ever say "never." Indeed, since 1982 the NIH budget has more than doubled and now exceeds \$7 billion.

But NIH is subject to staggering political manipulations, disease- and constituent-directed earmarking, and intense programmatic review—more extensive than that experienced by virtually any of the other R & D agencies. The pressure is from both the Congress and the OMB. Despite this attention from the outside, the bureaucratic infrastructure keeps the NIH and institute directors sufficiently low on the totem pole that they do not have the ready political access their exposure and scrutiny would suggest they deserve. The NIH is not only a very small (perhaps pencil dust) part of the one-third of a trillion

dollar budget of the Department of Health and Human Services (DHHS), but is also about five layers down in its enormous bureaucracy. The NIH sits at a level that makes it difficult for its director to deal with the DHHS's secretary, much less with the budget and policy officials at the White House.

For NIH, the major access to Congress comes in formal congressional hearings. In contrast, the NSF and NASA are free-standing agencies, which carry their own messages to the White House and to Capitol Hill with considerably greater flexibility and more ready access.

In early 1984 Dr. George Keyworth, a dynamic, action-oriented science advisor who tenaciously advocated and helped achieve substantial increases in the U.S. investment in its science and technology base, asked the White House Science Council to explore "the health of the universities." Mr. David Packard of Hewlett-Packard Corporation and Dr. Alan Bromley of Yale University chaired the group, which included a few eloquent medical statesmen, such as Dr. Joshua Lederberg.

The operating premise was that the health of U.S. science is highly dependent on the strength of its science and technology base. This strength depends, in turn, on the success of our universities in attracting and nurturing talent. A panel was assembled to examine the many issues that seemed to be of growing concern to the university community, the public and the R & D agencies. The panel's main conclusion was clear: "Our universities today simply cannot respond to society's expectations for them to discharge their national responsibilities in research and education without substantially increased support."

The Packard-Bromley group affirmed the original premise that the university system is a key to our future; that new talent in science is vital and young talent needs to be developed and not lost; that the diversity of our universities and colleges is an essential strength of the current higher education system and has to be supported; and that strong government-university-industry partnerships are vital in meeting our goals of competitiveness in health, agriculture, national security and global economics, as well as in improving the quality of life of our citizens.

These conclusions were underscored by many strong recommenda-



tions. Although many points in the report have been made before in some fashion, the fact that the White House came out with such a document is of enormous political value. Indeed, it has been the basis for much of Erich Bloch's case for increased support of many NSF programs in science and education.

About the same time, the Committee on Science and Technology of the House of Representatives, headed by Representative Donald Fuqua, developed a Science Policy Task Force, directed by John Holmfeld. The task force held hearings over several years on the future of science and the many issues that related to its success and limitations. These two efforts—the task force in Congress and the panel at the White House—were helpful to each other, and together clearly served to elevate the visibility of science issues within the political process. These two activities reinforced an observation that I often made while in Washington. The important matters of science and medicine are nonpartisan, and broad-based support can usually be achieved.

What has changed, and changed for the better, is that the base of support for investment in biomedical sciences, geared to help solve the problem of disease, has widened. It now includes a broad nonpartisan recognition that the sciences—and now more than ever, the biological sciences—are also vital elements to our future economic success, essential to the future of our nation and the quality of life of its citizens. The challenge at the present time is not to overcome differences of opinion or ideology, but rather to keep the fire burning, and keep these issues visible, continuously and vigorously.

And so I return to my original premise that we physicians must be party to the process in the many ways that this is possible. Government service, particularly in policy positions, is well regarded by many other professional groups and in particular, by law and business. Consequently, law and business are highly represented in the ranks of both elected and appointed officials, and have substantial influence in day-to-day policy formulation.

This is not so for science or medicine, for many reasons. First, there are the real concerns about the mo-



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mentum and continuity of one's academic career if one is contemplating a temporary full-time position in government. That is understandable, and only when such opportunities arise at the right time can they be realized. I would suggest, however, that in light of the already frequent moves of our peripatetic academics, such opportunities should be weighed seriously. Nevertheless, realizing the limited chances for such sabbatical leave, our profession should avidly support and participate whenever possible in the public policy efforts of its many societies and organizations.

Second, government service is not highly valued by many academics, perhaps because of an ivory tower bias against soiling one's hands with what is termed political—forgetting somehow the fierce politics that from time to time can rage in the halls of academe. A third factor in our limited voice is that the academic, especially in medicine, rarely infiltrates the policy level in government, thus preventing the “good old boys” network from establishing or sustaining a “revolving door.” The few MDs who find themselves in government service have to work up slowly through a complex bureaucracy and rarely achieve the visibility or recognition that would enable them to move back into an academic life where they can both educate their peers and promote a truly productive cross-fertilization.

The result is worrisome. So many public policy decisions for biomedical

science and for health care policy are made by non-physicians, with minimal input from our profession until after the fact. Reaction is vital, and in direct proportion to the danger of the scheme comes the intensity of the reaction—as was clear, for example, with threats of rescission or forward funding of NIH grants, or the recent leaks about privatization of the NIH. We need to exert more “front-end” influence, and that can come only with our increased participation.

But I am optimistic. Our system of government works—magnificently and brilliantly, if at times with frustrations and tedium—but it works best for those who participate. All of us in medicine are ultimately on a fate-sharing vessel, and our voices too must be a key part of this process.

Involvement in government and public policy allows your perspective to broaden. You understand the complexity of simple issues and at times the simplicity of seemingly complex ones. You understand that the defense budget and the health budget are not coupled. You discover that the budget process is a well-rehearsed dance between OMB and Congress and is not always (!) driven by policy. You also get a better sense of when it is necessary to ring the fire alarm. And you realize that issues do get aired; freedom of information protects our citizens even though it can be an enormous frustration, and that the press, for all the appropriate and inappropriate bashing it receives, is essential to our democratic process.

Indeed, public policy is made by people—not by a legal behemoth, by industry, by good old boys, or by any single political action group—but by any and all who choose to participate. With that rather simple dictum, I urge that we physicians elevate these political activities on our agenda for the future. □

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*Bernadine P. Healy '70 is chairman of the Research Institute of the Cleveland Clinic Foundation. From February 1984 to September 1985, she was deputy director of the Office of Science and Technology Policy, a sub-cabinet level presidential appointment. She would like to acknowledge Bryan Arling '69, friend and classmate, who helped broaden her perspectives on public policy issues.*





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